



ARASF

Atmospheric Research Airborne Support Facility

Flight Data Catalogue

Flight

A572

19 August 1997

TACIA



FLIGHT FOLDER

Flight No. A 572

DATE: 19/08/97

Take off: 1250

Landing: 2020



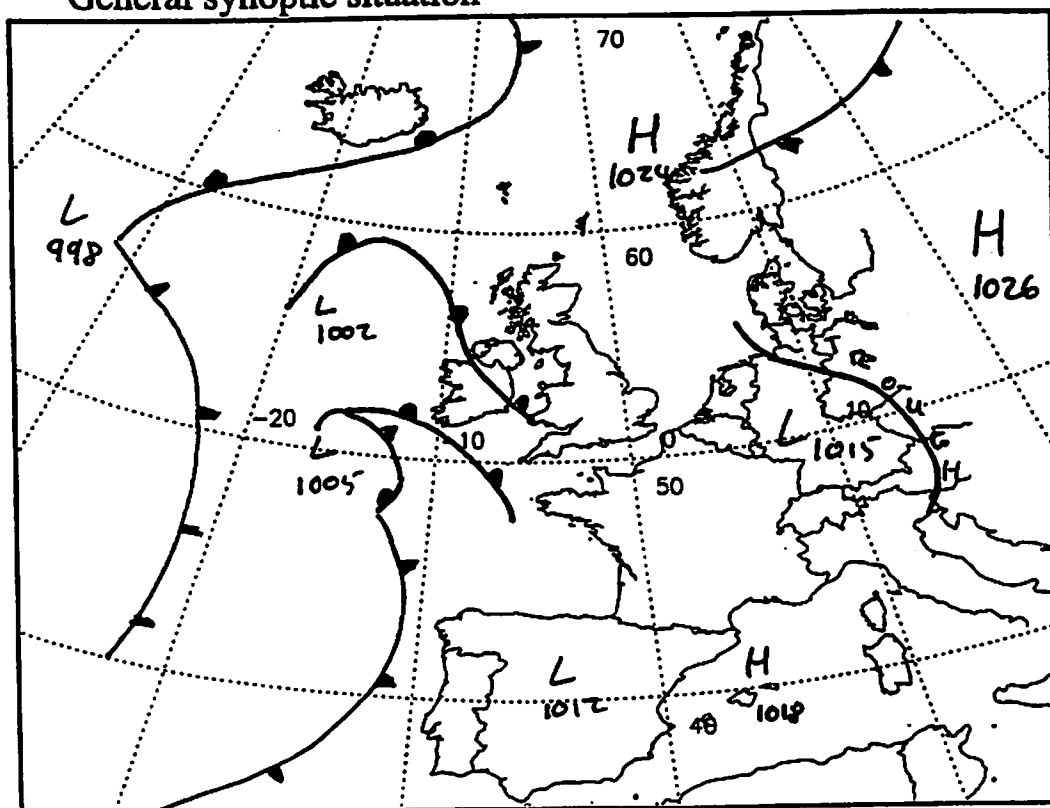
Aircraft Scientist : H RICHER
 Flight Leader : D PERCIVAL
 Others 2D : D ARTHUR
 CNC, PSAP/H₂O₂ : H DEWEY
 PAN ECGC : S KENT
 BOTTLES : D FINDLEY
 H₂O₂ : B BANDY
 NOXT : S BAGQUITTE
 FORMALDEHYDE : G MILLS
 CO : S SCHMITZEN
 PERCA : T GREEN
 PROJECT : S PENHETT
 SCIENTISTS : L DAVIES
 H LAW

Captain : SQN LDR C O'BRIEN
 Co-pilot : FLT LT M PURSE
 Navigator : SQN LDR S ATRES
 Engineer : FLT SAT M LIENHARDS
 Loadmaster : M ALM H CROSS

Trials Instructions TACIA MRF1 :

Operating area : ENGLISH CHANNEL, NORTH SEA, ST. GEORGES CHANNEL

General synoptic situation

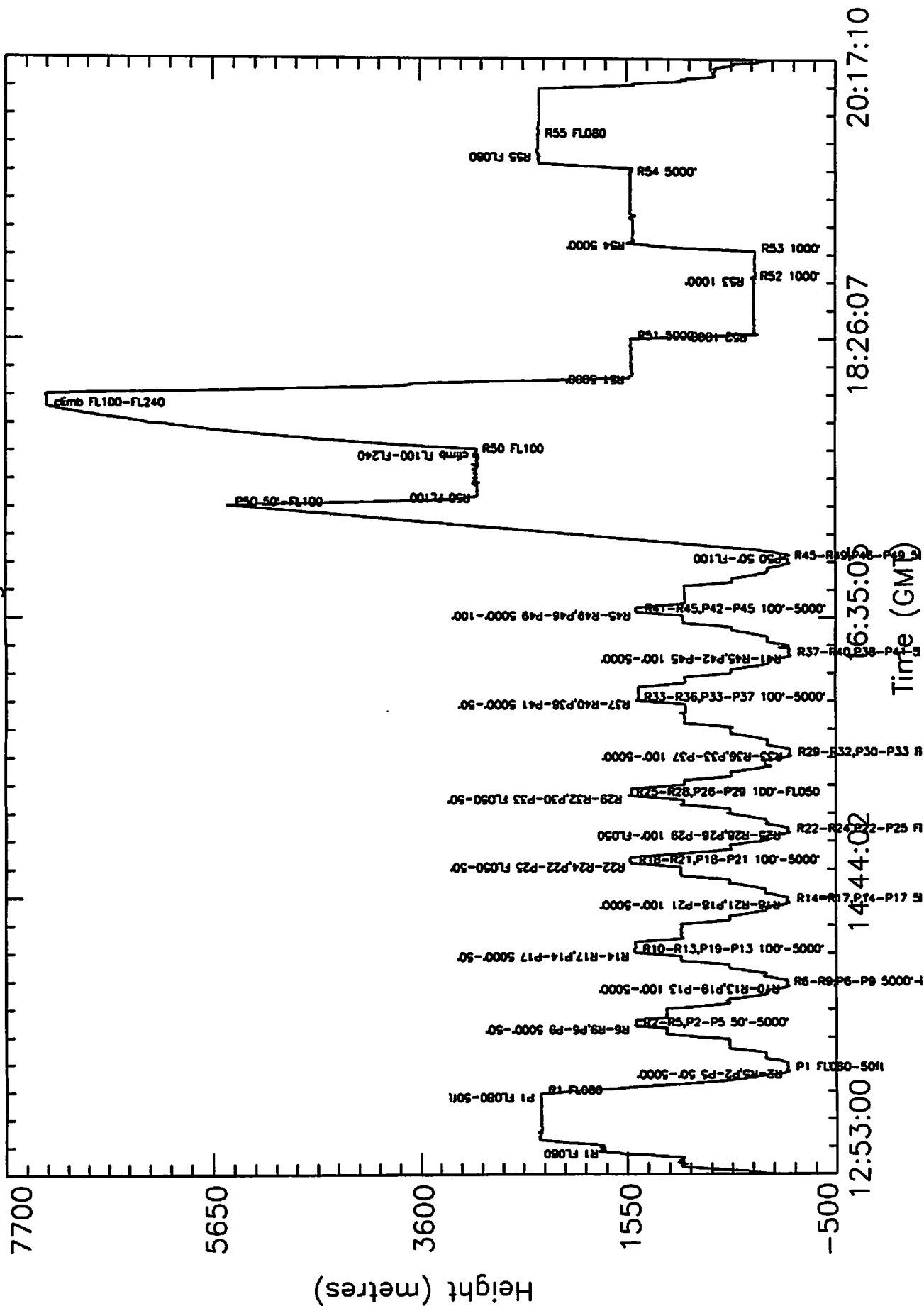


TIME: 12Z

12:53:00-20:17:10GMT



A572 19-AUG-97 Height time series



A572, 19th August, 1997
TACIA & WARM FRONT
English Channel, Southern North Sea, St.Georges Channel.

Start time	End time	Event	Height(s)	Hdg	Comments
125250					Take off RAF Lyneham
130017			3000'	220°	Instrument warm up leg.
130242	132530	R1	FL080	230°	
132530	133435	P1	FL080 50 ft	175°/100°	500fmp from 2000' Sea State 1
133452	133752	R2	100'	100°	Saw Tooth 1 UP
133752	133929	P2	100'- 800'	100°	500fpm
133929	134203	R3	800'	100°	
134203	134343	P3	800'- 2000'	110°	500fpm
134343	134738	R4	2000'	100°	
134738	134941	P4	2000'- 4000'	100°	1000fpm
134941	135206	R5	4000'	100°	
135206	135302	P5	4000'- 5000'	100°	1000fpm
135302	135520	R6	5000'	100°	Saw Tooth 1 DOWN
135520	135620	P6	5000'- 4000'	100°	1000fpm
135620	135945	R7	4000'	100°	
135945	140148	P7	4000'- 2000'	100°	1000fpm
140148	140339	R8	2000'	100°	
140339	140531	P8	2000'- 800'	055°	500fpm
140531	140713	R9	800'	055°	
140713	140907	P9	800'- 50 ft	055°	500fpm Sea state 1
140907	141104	R10	100'	055°	Saw Tooth 2 UP
141104	141229	P10	100'- 800'	055°	500fpm
141229	141353	R11	800'	055°	
141353	141554	P11	800'- 2000'	055°	500fpm
141554	141717	R12	2000'	050°	
141717	141848	P12	2000'- 3500'	050°	1000fpm
141848	142040	R13	3500'	050°	
142040	142205	P13	3500'- 5000'	055°	1000fpm
142205	142616	R14	5000'	055°	Saw Tooth 2 DOWN
142616	142742	P14	5000'- 3500'	050°	1000fpm
142742	143322	R15	3500'	050°	
143322	143451	P15	3500'- 2000'	070°	1000fpm
143451	143631	R16	2000'	070°	
143631	143841	P16	2000'- 800'	070°	500fpm
143841	144015	R17	800'	070°	
144015	144203	P17	800'- 50 ft	070°	500fpm Sea state 1
144223	144402	R18	100'	070°	Saw Tooth 3 UP
144402	144537	P18	100'- 800'	070°	500fpm
144537	144728	R19	800'	070°	
144728	144937	P19	800'- 2000'	070°	500fpm
144937	145102	R20	2000'	070°	
145102	145232	P20	2000'- 3500'	070°	1000fpm
145232	145552	R21	3500'	070°	
145552	145726	P21	3500'- 5000'	030°	1000fpm
145726	145949	R22	FL050	030°	Saw Tooth 3 DOWN
145949	150249	P22	FL050- 2000'	030°	1000fpm
150249	150435	R23	2000'	030°	
150435	150632	P24	2000'- 800'	030°	500fpm
150632	150809	R24	800'	030°	
150809	150945	P25	800'- 50 ft	030°	500fpm Sea state 3

150955	151132	R25	100'	030°	Saw Tooth 4 UP
151132	151307	P26	100' - 800'	030°	500fpm
151307	151453	R26	800'	030°	
151453	151717	P27	800' - 2000'	035°	500fpm
151717	151902	R27	2000'	035°	
151902	152040	P28	2000' - 3500'	040°	1000fpm
152040	152235	R28	3500'	040°	
152235	152422	P29	3500' - FL050	015°	1000fpm
152422	152657	R29	FL050	055°	Saw Tooth 4 DOWN
152657	152832	P30	FL050 - 3500'	045°	1000fpm
152832	153020	R30	3500'	045°	
153020	153148	P31	3500' - 2000'	040°	1000fpm
153148	153335	R31	2000'	040°	
153335	153617	P32	2000' - 800'	040°	500fpm
153617	153816	R32	800'	040°	
153816	154011	P33	800' - 50 ft	040°	500fpm Sea state 3
154114	154249	R33	100'	010°	Saw Tooth 5 UP
154249	154419	P34	100' - 800'	005°	500fpm
154419	154636	R34	800'	005°	
154636	154852	P35	800' - 2000'	005°	500fpm
154852	155122	R35	2000'	005°	
155122	155254	P36	2000' - 3500'	280°	1000fpm
155254	160030	R36	3500'	270°	
160030	160158	P37	3500' - 5000'	275°	1000fpm
160158	160722	R37	5000'	260°	Saw Tooth 5 DOWN
160722	160854	P38	5000' - 3500'	275°	1000fpm
160854	161115	R38	3500'	270°	
161115	161247	P39	3500' - 2000'	275°	1000fpm
161247	161417	R39	2000'	275°	
161417	161631	P40	2000' - 800'	275°	500fpm
161631	161803	R40	800'	275°	
161803	161952	P41	800' - 50 ft	270°	500fpm Sea state 2
162004	162156	R41	100'	280°	Saw Tooth 6 UP
162349	162525	P42	100' - 800'	165°	500fpm
162525	162740	R42	800'	165°	
162740	163007	P43	800' - 2000'	160°	500fpm
163007	163118	R43	2000'	160°	
163118	163255	P44	2000' - 3500'	165°	1000fpm
163255	163551	R44	3500'	165°	
163551	163720	P45	3500' - 5000'	170°	1000fpm
163720	163904	R45	5000'	170°	Saw Tooth 6 DOWN
163904	164037	P46	5000' - 3500'	165°	1000fpm
164037	164742	R46	3500'	165°	
164742	164913	P47	3500' - 2000'	165°	1000fpm
164913	165046	R47	2000'	165°	
165046	165311	P48	2000' - 800'	165°	500fpm
165311	165456	R48	800'	165°	
165456	165701	P49	800' - 50 ft	180°	500fpm Sea state 21
165709	165835	R49	100'	180°	
WARM FRONT					
170010	171955	P50	50 ft - FL100	275°	1000fpm from 1000'
172418	174056	R50	FL100	235°	Daventy corridor
174056	175913	climb	FL100 - FL240	300°	Climb to recce front.
181123	182558	R51	5000'	220°	Run thru warm front.
182820	184948	R52	1000'	220°/280°	Run thru warm front.
185026	190043	R53	1000'	270°	
190426	193109	R54	5000'	045°	Run thru warm front.
193935	194609	R55	FL080	050°	Run thru warm front.

TACIA August 1997

Flight A572

19/08/97

OBJECTIVE: To measure chemical composition of polluted plumes at different locations from northern Europe and, weather permitting, investigate transport associated with warm fronts.

LOCATION: North Sea.

WEATHER: Avoid areas of cloud and precipitation where possible.

SAMPLING PATTERN

Part A: Continental Pollution

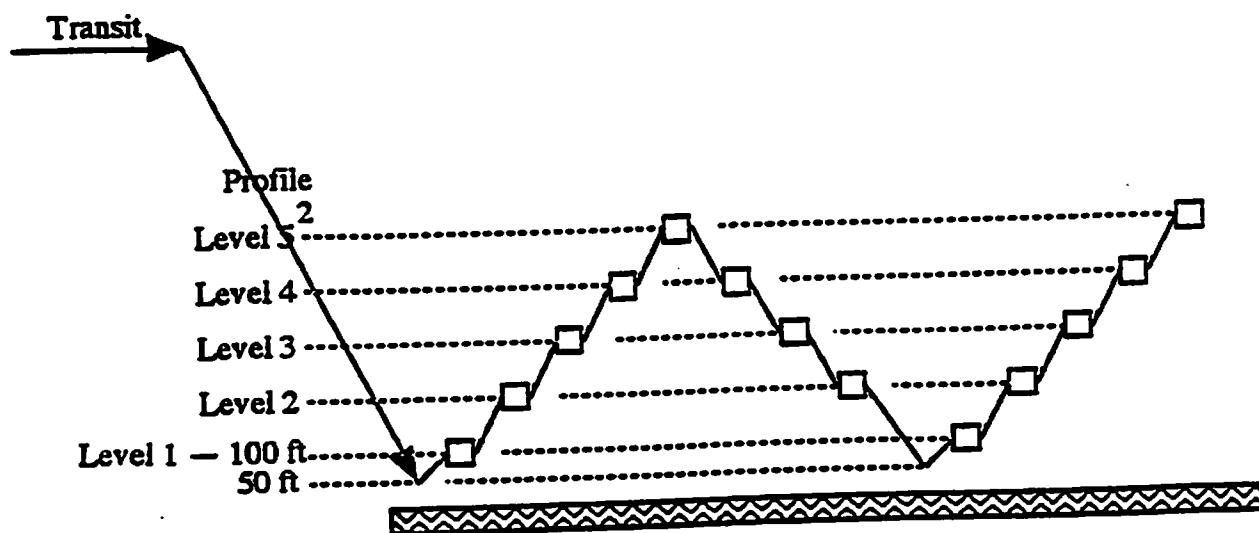
1. Take-off Lyneham 11:00 local time.
2. Ascend to 3000ft and hold for 5 minutes for chemical instrumentation.
3. Transit to sampling area at or above FL100 (>15 minutes).
4. Profile from FL100 at 500ft/min to minimum safe altitude.
5. Stepped sawtooth run between 50ft and 5000ft parallel to the coast of France, Belgium, the Netherlands and Germany: (50N, 2E) to (54N, 6E)
6. Continue sawtooth in a westward direction to a point off the UK coast (53N, 2E).
7. Turn to further continue sawtooth run into the wind *ca.* 50 miles.

Part B: Warm Front

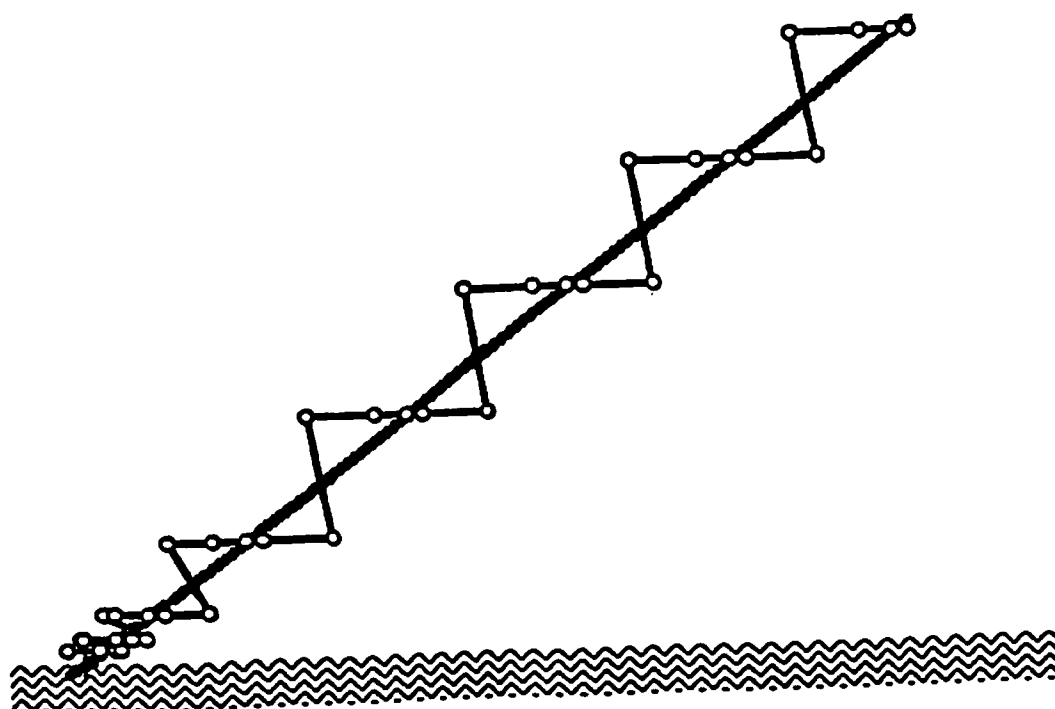
8. Transit in direction of warm front *- SATCOM FOR POS OF FRONT.*
9. Ascend to FL200.
10. Cross frontal surface at three heights : FL200, FL125 and 5000ft, see Figure. *→ WAVE.*
11. Return to Lyneham.

OTHER REQUIREMENTS: Constant cabin pressure on level runs.
Communications with TACIA Ops. required (SATCOM or phone patch).

Part A: Continental Pollution



Part B: Warm Front



Side view: Vertical Structure

Interactive Processing Log

Flight No. A572 Date: 14 08 97 User: TAKIA
Interactive by: D PERCIVAL
Date: 20 08 97

Renav

KALMAN FILTERING USED

TWC

Profile plotted :

Line chosen : Profile / Whole flight \ Other

a = - 0. 2722 E+1

b = + 0. 3876 E-2

c = + 0. 1712 E-6

LWC

PMS DATA FOR ONLY PART CTE FLIGHT

Heimann / Barnes

OK

AIRCRAFT FLYING PROGRAMME

DATE 19 August 1997

FLIGHT NO A572

FTI MRF1 TACIA

Aircraft scientist	H Richer	NOxy	S Bauguitte	WENDY DAVIS (SE26)
Flight leader	D Percival	Peroxide	B Bandy	
Cloud physics	D Arthur	Formaldehyde	G Mills	
CCN/PSAP/Oz	K Dewey	CO	S Schmitgen	
Pan ECGC	J Kent	PERCA	T Green	
Bottles	D Findley	Project Scientists X 2		→ Stuart Parkett → Kathy Law

Pre-flight clearance D Arthur / D Findley dep 0715

FTOs Depart F'boro 0715

Briefing	0900	Take off	1100	Land at	1900
				Lynham	

Press RETURN for next display (H for help)

NEXT DAY 18-AUG-1997 16:32

14
5

19 103

POST FLIGHT REQUIREMENTS FORM

Flight No: ~~42~~ 572 Date: ~~12/12/97~~ 140897 A/S Name: ~~XXXXXX~~ RICHETZ

Aircraft Scientist's Post Flight Requirements:

1. Are any copies of the flight folder required?
YES ☒ NO ☐ for 3 ... at ... least
2. Flight data and folders will normally be discarded after 10 years, is this OK?
YES ☒ NO ☐ If not OK, state period INDEF
3. Is the flight part of an international project or major campaign?
YES ☐ NO ☐ Name of Project ... TASCIA
4. Do you want the video tape kept?
YES ☒ NO ☐ How long? INDEF
5. Has the Handheld camera or the Camcorder been used:
YES ☐ NO ☒
If yes, do you want the handheld camera film processed:
immediately ☐ or when the film is finished? ☐
6. Do you want the cloud physics data kept?
YES ☒ NO ☐
If yes, which disc / file do you want it stored in? ... TBD
7. Do you want to do the interactive processing?
YES ☐ NO ☒

NOTE:

- Members of MRF Radiation and Cloud Physics groups are expected to meet their own requirements for data storage and non-standard processing.
- For non MRF users, Data Management Section will keep the processed data TEMPORARILY until the requirements are made known.
- Any other requirements for post-flight processing and data storage should be discussed with the Data Management Section.
- If copies of the Flight Folder are required, it is the responsibility of the Aircraft Scientist / User to produce them.

Flight Leader's Pre/In-Flight Check List

Flight No: A572 Date: 190897

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CHEK for auto selection

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
0953	REF +	5	567	✓		Approx 0568	
	REF -	7	2853	✓		Approx 2858	
	AOSS	19	4095	F/S O/S	TORQUE 4.0	2047 st. and level	
	AOA	18	4095	F/S O/S	TORQUE 3.0	2047 st. and level	
	RD HT	37	0000			As Indicated	0000
	PR HT	8	3861	1000	1001	As Altimeter	
	CABP	14	3296	1000	✓		
	A/S	9	0093	✓		As ASI	0000 - 0100
	UP1S	81	965	285	279		
	UP2S	82	773	125	141		
	UIRS	83	352.	-330	3N02		
	UP1Z	84	152	✓		Approx 0147	
	UP2Z	85	149	✓		Approx 0149	
	UIRZ	86	415	✓ 1552	3N02	Approx 2061	
	UP1T	87	2301	26.	26.3	As IAT	
	UP2T	88	2313	26		As IAT	
	UIRT	89	0000		3N02	As IAT	
	LP1S	91	256	42	56		
	LP2S	92	281	35	37		
	LIRS	93	0042		3N02		
	LP1Z	94	151	✓		Approx 0150	
	LP2Z	95	154	✓		Approx 0146	
	LIRZ	96	0034	✓	3N02	Approx 2050	
	LP1T	97	2303	26.		As IAT	
	LP2T	98	2268	26	27	As IAT	
	LIRT	99	0000		3N02	As IAT	
	J/W	42	9916			As Indicated	0000
	HYGR	58	3104	20.4	20.7		
	HYCC	59	726	✓		696-901	
	FDEW	138	4095			DP = (DRSU/20)-100 C	
	FSTA	139	4095				
	DTF	10	3200	28	28.7		
	DTC	11	6	147	27.3		
	NDTF	23	3563	30	26.0	same as De-Iced	
	NDTC	24	6				
	INCT	48	0346				
	HEIM	141	3230	29.0			
	PRTC	142	2324	16		approx 2380	
	TWCD	70	3257	✓		0000-4094	
	TSAM	72	233	✓		0640-1860 < min	
	O3	100	156				
	O3P	106	2034	958	✓	$P \approx (DRSU \times 0.4) + 145mB$	
	O3RG	113	1823				
0419							

Flight Leaders' Pre/In-Flight Check List

BCDS for auto selection

GMT	PARA.	NO.	H/D	D.R.S.	DECODE	INSTR	EXPECTED VALUE
0919	FL NO	1	Hex	0572	4572	/	Flight No.
	GMTH	2	Hex	0092	/		Clock: First 4 No.s
	GMTM	3	Hex	CD12	/		Clock: Last 4 No.s
	E/M	4	Hex	9			Event Mark Counter
	INCH	49	Dec				Multipxd Hkeeping
				0000	too	H/d	?
	LATC	160	Dec	0000			Latitude
	LONC	161	Dec	0000			Longitude
0922							

Total Water Content Meter Check List

TOTW for auto selection

Height: PRE FLIGHT.

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
	TWCD	70	3290	/		0001-4095	
	TNOS	71	1325	/		2000-3460 < min	
	TSAM	72	239	/		0640-1860 < min	
	TAMB	73	2628	/		2400-3200	
	TSRC	74	2274	/		2160-2470	
	HTR1	75	2076	/		0000-4095 < 4095	
	HTR2	76	2122	/		0000-4095 < 4095	
	ISRC	77	1022	/		0001-1230 < min	
	STAT	78	4084	/		4095	
	EV1V	170	2043				
	EV2V	171	2043				
	NPWR	172	3310				
	EVIC	173	3968				
0925	EV2C	174	3968				

BROAD BAND RADIOMETER FIT

(pre-Flight only)

	PARA NO	POSITION	DOMES	COVERS	OBSCURERS
UPPER	81,84,87	Port	Clear	Off / On	Large/Small
	82,85,88	Stbd	Red		
	83,86,89	Centre	Silicon		
LOWER	91,94,97	Port	Clear	Off / On	
	92,95,98	Stbd	Red		
	93,96,99	Centre	Silicon		

Flight Leader's ~~Pre~~/In-Flight Check List

Flight No: 572

Date: 190897

Page.....of 3

CHEK for auto selection

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
1414	REF +	5	567	✓		Approx 0568	
	REF -	7	2852	✓		Approx 2858	
1424	AOSS	19	1871	F/S O/S	TORQUE	2047 st. and level	
	AOA	18	1008	F/S O/S	TORQUE	2047 st. and level	
	RD HT	37	4095	5000	✓	As Indicated 0000	
	PR HT	8	3268	5.0	✓	As Altimeter	
	CABP	14	2900	911	✓		
	A/S	9	1294	179	✓	As ASI 0000 - 0100	
1511	UP1S	81	1491	448	502		
	UP2S	82	1300	44231	264		
	UIRS	83	568	-280	3N02		
	UP1Z	84	152	✓		Approx 0147	
	UP2Z	85	151	✓		Approx 0149	
	UIRZ	86	667		3N02	Approx 2061	
	UP1T	87	2466	18	20.3	As IAT	
	UP2T	88	2474			As IAT	
	UIRT	89	0000		3N02	As IAT	
	LP1S	91	211	20	36		
	LP2S	92	210	14	14		
1614	LIRS	93	104		3N02		
	LP1Z	94	149	✓		Approx 0150	
	LP2Z	95	151	✓		Approx 0146	
1648	LIRZ	96	143	✓	3N02	Approx 2050	
	LP1T	97	2458	19		As IAT	
	LP2T	98	2423	20	21.7	As IAT	
	LIRT	99	0000		3N02	As IAT	
1705	J/W	42	1350	0.1	0.12	As Indicated 0000	
	HYGR	58	2578	3.0	-1.6		
	HYCC	59	807	✓		696-901	
	FDEW	138	2006	0	0	DP = (DRSU/20)-100 C	
	FSTA	139	608				
	DTF	10	3425	15	7.2		
	DTC	11	5		13.8		
	NDTF	23	3472	14	5.9	same as De-Iced	
	NDTC	24	5				
	INCT	48	2297	✓			
	HEIM	141	2842	20	✓		
	PRTC	142	2383	16		approx 2380	
	TWCD	70	1007	✓		0000-4094	
	TSAM	72	1130	✓		0640-1860 < min	
	O3	100	190	✓			
	O3P	106	1852	885.8		$P \approx (DRSU \times 0.4) + 145mB$	
	O3RG	113	2161				
1715							

Flight Leaders' Pre/In-Flight Check List

BCDS for auto selection

GMT	PARA.	NO.	H/D	D.R.S.	DECODE	INSTR	EXPECTED VALUE
1716	FL NO	1	Hex	572	/		Flight No.
	GMTH	2	Hex	0171	✓		Clock: First 4 No.s
	GMTM	3	Hex	0648	✓		Clock: Last 4 No.s
	E/M	4	Hex	0126	✓		Event Mark Counter
	INCH	49	Dec				Multipxd Hkeeping
2821 0.	3856 1260	2816	899	2818	3734	2798	174
	LATC	160	Dec	596	52.448N	/	Latitude
	LONC	161	Dec	0002	0.17 E	/	Longitude
1721							

Total Water Content Meter Check List

TOTW for auto selection

Height: FL100

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
1732	TWCD	70	1455	✓		0001-4095	
	TNOS	71	2551	✓		2000-3460	< min
	TSAM	72	1090	✓		0640-1860	< min
	TAMB	73	2632	✓		2400-3200	
	TSRC	74	2232	/		2160-2470	
	HTR1	75	2079	✓		0000-4095	< 4095
	HTR2	76	2852	✓		0000-4095	< 4095
	ISRC	77	1020	/		0001-1230	< min
	STAT	78	4095			4095	
	EV1V	170	3487				
	EV2V	171	3145				
	NPWR	172	2672				
	EVIC	173	4004				
1740	EV2C	174	4001				

BROAD BAND RADIOMETER FIT

(pre-Flight only)

	PARA NO	POSITION	DOME	COVERS	OBSCURERS
UPPER	81,84,87	Port	Clear	Off / On	Large/Small
	82,85,88	Stbd	Red		
	83,86,89	Centre	Silicon		
LOWER	91,94,97	Port	Clear	Off / On	
	92,95,98	Stbd	Red		
	93,96,99	Centre	Silicon		

Flight Leaders' Pre/In-Flight Check List

BCDS for auto selection

GMT	PARA.	NO.	H/D	D.R.S.	DECODE	INSTR	EXPECTED VALUE
1829	FL NO	1	Hex	0572	✓		Flight No.
	GMTH	2	Hex	083	✓		Clock: First 4 No.s
	GMTM	3	Hex	0024	✓		Clock: Last 4 No.s
	E/M	4	Hex	134	✓		Event Mark Counter
	INCH	49	Dec				Multipxd Hkeeping
3542 19.8	1468 ✓ 3856 ✓	3541	573	3540	3718	3588	134
	LATC	160	Dec	0589	51.832		Latitude
	LONC	161	Dec	4031	-5.272		Longitude
1833							

Total Water Content Meter Check List

TOTW for auto selection

Height: 1000 ft

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
1834	TWCD	70	2921	✓		0001-4095	
	TNOS	71	2574	✓		2000-3460	< min
	TSAM	72	1215	✓		0640-1860	< min
	TAMB	73	2832	✓		2400-3200	
	TSRC	74	2252	✓		2160-2470	
	HTR1	75	3502	✓	Noise + ?	0000-4095	< 4095
	HTR2	76	2172	✓		0000-4095	< 4095
	ISRC	77	1022	✓		0001-1230	< min
	STAT	78	4095	✓		4095	
	EV1V	170	3491				
	EV2V	171	3144				
	NPWR	172	2658				
	EVIC	173	4004				
1840	EV2C	174	4007				

BROAD BAND RADIOMETER FIT

(pre-Flight only)

	PARA NO	POSITION	DOME	COVERS	OBSCURERS
UPPER	81,84,87	Port	Clear	Off / On	Large/Small
	82,85,88	Stbd	Red		
	83,86,89	Centre	Silicon		
LOWER	91,94,97	Port	Clear	Off / On	
	92,95,98	Stbd	Red		
	93,96,99	Centre	Silicon		

Flight Leader's Pre/In-Flight Check List

Flight No: A572

Date: 140897

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CHEK for auto selection

GMT	PARA	NO	D.R.S.	DECODE	INSTRUMENT	EXPECTED VALUES	
						INFLIGHT	PREFLIGHT
1750	REF +	5	567	✓		Approx 0568	
	REF -	7	2852	✓		Approx 2858	
	AOSS	19	2075	F/S O/S	TORQUE	2047 st. and level	
	AOA	18	1366	F/S O/S	TORQUE	2047 st. and level	
	RD HT	37	4045	✓	F4240.	As Indicated	0000
	PR HT	8	1514	24.0	FL240 ✓	As Altimeter	
	CABP	14	2490	750.			
	A/S	9	1268	178		As ASI	0000 - 0100
	UP1S	81	0886	250	237		
	UP2S	82	0664	108	114		
	UIRS	83	353	-330	3N02		
	UP1Z	84	152	✓		Approx 0147	
	UP2Z	85	134	✓		Approx 0149	
	UIRZ	86	250	✓	3N02	Approx 2061	
	UP1T	87	2768	4	17.5	As IAT	
	UP2T	88	2750	4		As IAT	
	UIRT	89	0550		3N02	As IAT	
	LP1S	91	0216	25	56		
	LP2S	92	0139	-6	11		
	LIRS	93	0064	✓	3N02		
	LP1Z	94	134	✓		Approx 0150	
	LP2Z	95	135	✓		Approx 0146	
	LIRZ	96	0844		3N02	Approx 2050	
	LP1T	97	2538	15	18.2	As IAT	
	LP2T	98	2526	16		As IAT	
	LIRT	99	0550		3N02	As IAT	
	J/W	42	1460	0.3	0-18	As Indicated	0000
	HYGR	58	2738	17			
	HYCC	59	712	✓		696-901	
	FDEW	138	2113	5.65	-13.7	DP = (DRSU/20)-100 C	
	FSTA	139	0608				
	DTF	10	0426	17	-8.8		
	DTC	11	6		17.6		
	NDTF	23	376	17	-10.0	same as De-Iced	
	NDTC	24	6				
	INCT	48	2623				
	HEIM	141	2568	11	✓		
	PRTC	142	2383	✓		approx 2380	
	TWCD	70	2240	✓		0000-4094	
	TSAM	72	1172	✓		0640-1860	< min
	O3	100	068				
	O3P	106	1704			$P \approx (DRSU \times 0.4) + 145mB$	
	O3RG	113	2065				
1826							

Flight Leader's In-Flight Log

Flight No A 572.....

Date 19 08 97.....

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Video Tape
No. Ends 1550 (FFC) / DFC / RFC

	GPS	INU
Lat	51° 30.28N	51° 30.30N
Long	001° 54.10W	001° 59.10W
Time	0847	0848
Status	OK	GC ALGN.

DRS recording to HORACE	(y) / n
HORACE recording to disc	(y) / n
SATCOM sending pos. reports	(y) / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
075344				DATA	ON					
123045				Set to Nav						
12520				Take off	RAF	Lynham				
				Climb level	3000ft					
				START PT	Climb.					
130217	10	3000	1001	220	180	15.4	10.1	off		160/6.
				CONTINENTAL	POLLUTION					
				START	RUN 1					
130242	11	FLO60	1013	225	180	11.5	8.0	off		163/10.
				INT	RI					
130501	12	FLO60	1013	225	180					
				Restart RI						
130734	13	FLO80	1013	230	180	8.1	1.2	OFF		179/7.
				Cend	RI	1/START PI				
132530	14	FLO80	1013	175	180	8.0	4.1	OFF		184/7
				ABSENT	PI	to 500 RPM.				
133055	15	2000ft		000	180	20.6	15.4			
133300				Cend	PI	1/START PI 2				SS = 1
133435	17	500ft	1018	100	180	14.3	15.8	OFF		144/13

Flight Leader's In-Flight Log

Flight No A 572

Date 19.08.97

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Video Tape	
No.	H/
Ends	1550
FFC / DFC / RFC	

	GPS	INU
Lat	50° 00.08N	50° 00.43N
Long	00° 43.81W	00° 41.01W
Time	1358.41	1359.08.
Status	on	NAV

DRS recording to HORACE	(y) n
HORACE recording to disc	(y) n
SATCOM sending pos. reports	(y) n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				End	R7	1 Start	P7			
135445	29	4000	101P	100	19.5	140		OFF		
				End	P7	1 Start	R8			
140148	30	2000	101P.	100	180	22.7	10-6	OFF		149/8.
				End	R8	1 Start	P8	500 FPM.		
140334	31	2000	101P					OFF		/
				End	P8	1 Start	R9			
140531	32	1000/500	101P	055	180	24.9	13.2	OFF		106/5
				End	R9	1 Start	P9			
140713	33	800	101P	055	180			OFF		/
140907	34	500	101P	055	180	21.3	16.5	OFF	-10	88=1
140907.	35	500	101P	055	180	21.3	16.5	OFF		080/7
				End	R10	1 Start	P10			
141104	36	1000	101P	055	180	23.8	13.5	OFF		085/6
				End	P10	/	Start	R11		
141229	37	800	101P	055	180	24.5	13.3	OFF		103/5
				End	R11	/	Start	P11		520 FPM
141353	38	800	101P	055	180					
				End	P11	/	Start	R12		
141554	39	2000	101P	055	180	220	12.2	OFF		125/4

Flight Leader's In-Flight Log

Flight No A 572

Date 14 Oct 97

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Video Tape
No.
Ends
FFC / DFC / RFC

GPS	INU
Lat	
Long	
Time	
Status	

DRS recording to HORACE	y/n
HORACE recording to disc	y/n
SATCOM sending pos. reports	y/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				Start R18						SS = 3
144223	52	100	1018	180	23.1	14.3		OFF		060/6.
				End R18						
144402	53	100	1018	070	180			OFF		/
				End P18						
144537	54	800	1018	070	180	23.8	9.0	OFF		060/5
				End R19						
144728	55	800	1018							5000ft
				End P19				Run 20		
144937	58	2000	1018	070	180	20.4	6.5	OFF		070/6.
				End Run 20						
145102	59	2000	1018	070				OFF		10000ft
				End P20				Run 21		
145232	60	3500	1018	070	180	17.8	5.8	OFF		085/4
				End Run 21						
145552	61	3500	1018	070						
				End P21				Run 22		
145726	62	5000	1018	030	120	14.4	6.8	OFF		060/4
				End Run 22						
145944	63	FL050	1013	030						

Video Tape
No. 11
Ends 1550
FFC / DFC / RFC

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	Y/n
HORACE recording to disc	Y/n
SATCOM sending pos reports	y/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				START R	2					
133452	19	1000 ft	1018	100	180	18.7	15.4	OFF		177/20
				End R2		/ 1000 ft				
133752	19	1000 ft	1018	100						
				End P2		15000 ft				
133924	20	8000 ft	1018	100	180	19.2	15.0	OFF		212/3
				End R3		/ START P3		5000 ft		
134203	21	5000 ft	1018	100				OFF		
				End P3		/ Start R4				
134343	22	20000 ft	1018	110	180	21.1	14.0	OFF		154/15
				End R4		/ Start P4				
134738	23	20000 ft	1018	100	180	20.7	13.0	OFF		173/0
				End P4		/ Start R5				
134941	24	40000 ft	1018	100	180	17.5	8.4	OFF		161/9
				End R5		/ Start P5				
135206	25	40000 ft	1018	100	180			OFF		
				End P5		/ Start R6				
135302	26	50000 ft	1018	100	180	14.7	9.1	OFF		161/0
				End R6		/ Start P6				
135520	27	50000 ft	1018							
		40		End P6		/ Start R7				
135620	28	40000 ft	1018	100	180	17.4	10.0	OFF		155

Video Tape

No. 1550
Ends

FFC / DFC / RFC

GPS

Lat 50 30.01 50° 34.88'N
Long 000° 34.41'E 0° 39.60'E
Time 141841 142019
Status CH NAV.

INU

DRS recording to HORACE y/n

HORACE recording to disc y/n

SATCOM sending pos reports y/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr	Wind/ Sea st.
				Encl	R12	1	Start P12		1000 fpm
141717	40	2000	1018	050	180			OFF	
				Encl	P12	1	Start R	13.	106/3
141841	41	3500	1018	050	180	18.5	6.4	OFF	106/3
				Encl	R13	1	Start	P13.	1000 fpm
142040	42	3500	1018					OFF	1
				Encl	P13	1	Start R14		
142205	43	5000	1018	055	180	14.6	6.1	OFF	073/2
				Encl	R14	1	Start	P14.	1000 fpm
142616	44	5000	1018	055	180			OFF	1
				Encl	P14	1	Start	R15	
142742	45	3500	1018	050	180	17.9	7.5	OFF	102/1
				Encl	R15	1	Start	P15	
143322	46	3500	1018	050	180	18.0	5.6	OFF	085/2
				Encl	P15	1	Start	R16.	
143451	47	2000	1018	070	180	22.0	7.8	OFF	082/3
				Encl	R16	1	Start	P16	5000 f
143631	48	2000	1018	070	180	2			
				Encl	P16	1	Start	R17	
143841	49	800	1018	070	180	24.6	8.4	OFF	065/6
				Encl	R17	1	Start	P17	
144015	50	800	1018	070	180				
				Encl	P17				
144203	51	50 fpm	1018	070	185	23	14	OFF	

Video Tape
No.
Ends
FFC / DFC / RFC

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	y / n
HORACE recording to disc	y / n
SATCOM sending pos reports	y / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				Encl	P22	/	Start	R23		
150249	64	2000	1020	030	180	22.0	6.0	OFF		
				Encl	R23	/	st	P24		
150435	65	2000	1020							
				Encl	P24	/	Start	R24		
150632	66	2000	1020	030	180	23.0	7.4	OFF		058/8
				Encl	R24	/	Start	P25		
150804	67	2000	1020					OFF		
SATCOM	68	2000	1020	030	180	22.3	14.0	OFF		
150945	68	50ft	1020	030	180	22.3	14.0	OFF		/
				Start	R25					SS-3
150955	69	100ft	1020	030	180	22.4	12.7	OFF		046/7
				Encl	R25	/	Start	P26		
151132	70	100ft	1020					OFF		
				Encl	P26	/	Start	R26		
151307	71	800	1020	030	180	23.7	8.5	OFF		070/7
				Encl	R26	/	Start	P27		
151453	72	800	1020							
				Encl	P27	/	Start	R27		
151717	73	2000	1020	035	180	20.4	7.2	OFF		091/7
				Encl	R27	/	Start	P28		1000/8
151902	74	2000	1020							

Flight Leader's In-Flight Log

Flight No A 572.....

Date 14 Oct 97.....

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Video Tape
No. 41
Ends 1550
FFC / DFC / RFC

	GPS	INU
Lat	52°40.58W	52°44.43
Long	3°55.73E	3°56.61E
Time	1521	1522
Status	OK	NAV

DRS recording to HORACE	y/n
HORACE recording to disc	y/n
SATCOM sending pos. reports	(y)/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				End	P28	/	Start	R 28		
152040	75	3500	1020	040	180	16.2	3.1	OFF		104/0
				End	R28	/	Start	P 29		
152235	76	3500	1020							
SHO 76000 10000										
				End	P29	/	Start	R 29		
152422	77	FLOSO	1013	015	180	13.6	-21.6	OFF		111/9
				End	R29	/	Start	P 30		
152657	78	FLOSO	1013	055				OFF		124/10
				End	P30	/	Start	R 30		
152832	79	3500	1020	045	180	15.9	7.1	OFF		122/6.
				End	R30	/	Start	P 31		
153020	80	3500	1020					OFF		
				End	P31	/	Start	R 31		
153148	81	2000	1020	040	180	20.2	6.6	OFF		027/6
				End	R31	/	Start	P 32		
153335	82	2000	1020	040						
				End	P32	/	Start	R 32		
153617	83	500	1020	040	180	23.2	7.3	OFF		075/7
				End	R32	/	Start	P 33		
153816	84	500	1020					OFF		

Video Tape
No. #2
Ends 1855
<u>FFC</u> / DFC / RFC

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	y / n
HORACE recording to disc	y / n
SATCOM sending pos reports	y / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
154011	85	500	End	P33	/	22.0	R35		SS = 3	
154011	85	500	1022	040	180	22.0	16.1	OFF		/
			Start	R 33						
154114	86	100	1022	010	180	22.2	16.2	OFF		063/7
			End	R33	/	Start	P34			
154249	87	100	1022					OFF		72/5
			End	P34	/	Start	R34			
154419	88	800	1022	005	180	23.4	5.4	OFF		92/8
			End	R34	/	Start	P35			
154636	89	800	1022	005	180			OFF		
			End	P35	/	Start	R35			
154852	90	2000	1022	005	180	20.1	5.1	OFF		046/6
			End	R35	/	Start	P36			
155122	92	2000	1022							
			End	P36	/	Start	R36			
155254	93	3500	1022	200	180	15.9	6.7	OFF		077/6
			End	R36	/	Start	P37			
160030	94	3500	1022	270	180	16.5	3.9	OFF		070/6
			End	P37	/	Start	R37			
160158	95	5000	1022	275	180	13.4	1.6	OFF		078/7
			End	R37	/	Start	P38			
160722	96	5000	1022	260	180	13.7	-0.3	OFF		97/4

Flight Leader's In-Flight Log

Flight No A 572.....

Date 190897.....

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Video Tape
No. Ends . FFC / DFC / RFC

	GPS	INU
Lat Long Time Status		

DRS recording to HORACE	y / n
HORACE recording to disc	y / n
SATCOM sending pos. reports	y / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				Encl	P38	1	1st	R38		
160854	97	3500	1022	275	180	16.5	9.6	OFF		083/5
				Encl	R38	/	Start	P39		
161115	98	3500	1022	270	180					
				Encl	P39	/	Start	R39		
161247	99	2000	1022	275	180	20.5	11.2	OFF		109/6
				Encl	R39	/	Start	P40		/
161417	100	2000	1022	275						
				Encl	P40	/	Start	R40		
161631	101	800	1022	275	185	23.7	9.4	OFF		124/7
				Encl	R40	/	Start	P41		
161803	102	800	1022	275						
				Encl	P41	/	15.4			SS-2
161952	103	5000	1020	270	180	21.0	21	OFF		133/7
				Start	R41					
162004	104	1000	1020	280	180	20.7	17.2	OFF		114/3
				Encl	R41	/	Start	P42		
162155	106	1000	1020	180	20.5	17.1	OFF			125/5
				Start	P42					
162349	107	1000	1020	165	180	22.2	10	OFF		143/8

Video Tape
No.
Ends
FFC / DFC / RFC

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	y / n
HORACE recording to disc	y / n
SATCOM sending pos reports	y / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				End	P42	/	Start	R42		
162525	108	800 ^{ft}	1020	165	180	23.7	5.5	OFF		146/8
				End	R42	/	Start	P43		
162740	109	800 ^{ft}	1020	165				OFF		/
				End	P43	/	Start	R43		
163007	110	2000	1020	160	180	21.1	7.6	OFF		141/7
				End	R43	/	Start	P44		
163118	111	2000	1020					OFF		
				End	P44	/	Start	R44		
163255	112	3500	1020	165	180	17.0	7.3	OFF		136/7
				End	R44	/	Start	P45		
163551	113	3500	1020							
				End	P45	/	Start	R45		
163720	114	5000 ^{ft}	1020	170	180	13.2	2.2	OFF		128/4
				End	R45	/	Start	P46		
163904	115	5000	1020							
				End	P46	/	Start	R46		
164037	116	3500	1020	165	180	17.2	5.0	OFF		141/6
				End	R46	/	Start	P47		22.7°C in cargo hold
164742	117	3500	1020	165	180	17.0	0.5	OFF		120/5
				End	P47	/	Start	R47		
164913	118	2000	1020	165	180	20.4	9.3	OFF		48/5

Flight Leader's In-Flight Log

Flight No A 572

Date 16 1908 97

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Video Tape	
No.	1855
Ends	#2
EFC / DFC / RFC	

	GPS	INU
Lat	52° 39.26N	52° 37.95N
Long	2° 21.68E	02° 24.18E
Time	1652	165417
Status	OK	NAV

DRS	recording to HORACE	y/n
HORACE	recording to disc	y/n
SATCOM	sending pos. reports	y/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				End	R47	/	Start	P48		
165046	119	2000	1020							
				End	P48	/	Start	R48		
65311	120	800	1020	165	180	22.9	11.6	OFF		106 / 4
				End	R48	/	P49			
65456	121	800	1020	165	180			OFF		
				End	P49					
65701	122	50 FL	1020	180	180	21.2	13.4	OFF		SS=1 06 / 6
				Start	R49					
5709	123	100 FL	1020	180	180	22.5	11.2	OFF		059 / 5
				End	R49	/	START	P50		
165835	124	100	1020							
			WARM		FRONT					
			START	End	P50				500 RPM	
70010	125	50 FL	1020	275	180	21.2	14.6	OFF		62 / 7
				Adjust	P50				1000	
70205	126	1000	1020	275	180	22.4	7.6	OFF		074 / 5
				End	P50					
71955	127	FL180	1013	270	180	-9.1	-29.2	OFF		307 / 6
				START	R50					
72418	128	FL100	1013	265	240	3.3	-2.4	OFF		318 / 5

Video Tape
No. #2
Ends 1855
FFC / DFC / RFC

	GPS	INU
Lat	52°17.06N	52°15.50N
Long	0°45.03W	0°47.73W
Time	1730	1730
Status	OK	NAL

DRS recording to HORACE	(y)/n
HORACE recording to disc	(y)/n
SATCOM sending pos reports	(y)/n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr	Wind/ Sea st.
					Density Consider.				
				Encl	Run	50.			
				Climb	Encl	upto	height.		
174056	129	FL100	1013	235	307	0.4			
					180	3.0	0.2	OFF	135/4
				Climb	upto	Height	to	look for	Front
				level	FL240				
175913	130	FL240	1013	300	180	-23.7	-52.5	OFF	194/4
1800				Descent to look for		FLIGHT			
				START	RUN	51			
181123	131	5000 ^{ft}	1012	225	180	12.8	4.1	OFF	173/12
				Head	P07				
				Encl	Run	51			
182558	132	5000	1012	220	180	12.2	11.6	OFF	178/13
				Spiral Descent					
				Start	R52				
182820	134	1000	1012	220	190	14.4	17.3	OFF	174/10
184510				Head	P10				
				Encl	R52				
184948	135	1000	1012	280	180	18.4	17.2	OFF	172/8
				start	R53				
185026	136	1000	1012	270	180	18.8	17.5	OFF	171/7
				Encl	R53				
190043	137	1000	1012	270	180	18.0	18.3	OFF	/

Flight Leader's In-Flight Log

Flight No A ...572....

Date 1908 97.....

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Video Tape
No. 57243
Ends 2100
FFC / DFC / RFC

	GPS	INU
Lat	50° 56.36N	51° 09.76N
Long	6° 30.71W	006° 20.60W
Time	1400	1405
Status	OK	NRV

DRS recording to HORACE (y) n

HORACE recording to disc (y) n

SATCOM sending pos. reports (y) n

[illegible]

DRS recording to HORACE	y / n
HORACE recording to disc	y / n
SATCOM sending pos reports	y / n

[illegible]

FLIGHT LEADER'S INSTRUMENT STATUS REPORT

FLIGHT NO: 572

DATE: 19 / 08 / 97

MRF

INSTRUMENT	FITTED	OPERATED	COMMENTS
NAVIGATION:			
GPS	/		
OMEGA	/		
INU	/		
RADALT	/		
THERMOMETERS:			
DI TEMP	/		
NDI TEMP	/		
ICTP	/		
HEIMANN	/		
HYGROMETERS:			
GEN. EASTERN	/		
TWC	/		
FWVS	/		
J/W	/		
EXP. PITOT HEAD:			
STATIC PRESS.	/		
PITOT PRESS.	/		
GUST VANES	/		
RADIOMETERS:			
UPPER CLEAR	/		
UPPER RED	/		
UPPER SILICON	3NO2		
LOWER CLEAR	/		
LOWER RED	/		
LOWER SILICON	3NO2		
MARSS	+		
SAFIRE	+		
DEIMOS	+		
ARIES	+		
CHEMISTRY:			
OZONE	/		
ECGC	/		
NOX	/		
OTHERS:			
CCN	X		
CLOUD PHYSICS	/		
CABIN PRESS	/		
NEPHELOMETER	/		
PSAP	✓		

P.T.O. FAULTS/INCIDENTS

4 units

- 1 HORACE - Piche bootsing.
H-W DU - 1st 2nd
NEZ. Hand Ditch

0403 HORACE FREEZE Halted. - GREEN LIGHT ON HORACE for ≈ 5 min. all displays locked up. Rebooted.

- 2 FFC - picture UFS.

- 3 HORACE Rear Van. Unable to display screen.

- 4 SATCOM - Not getting messages to CCUR

- 5 NDI DI split of 0-900 @ 1710 passing FLOPO

- 6 No DRS data written to optic since 172042

But size of DRS DAT.DAT files getting larger. and space on disk getting less.

- 7 AHS displayed diesel at 1947. Could video switch to other displays, but no vertical line on AHS display

- 8 One of the i/c loads on E Rack coms box UFS Marked.

VIDEO TAPE LOG

Flight No A 572

Project TACIA

Date 190897

Tape No #1 User CHEMISTS

Retention Period INDEF

GMT	Tape Counter	Camera Position	Remarks
1250	0000	FFC	Start Tape Climb out from RAF Lyneham
130242			
→ 132530		R1	FLOPO
132530			
→ 133435		P1	FLOPO - 50 ^{ft}
133452			
→ 135302		SAW TOOTH 1 UP	R2 → P5 100 ^{ft} → 5000 ^{ft}
135302			
→ 140907		SAW TOOTH 1 DOWN	R6 → P9 5000 ^{ft} → 50 ^{ft}
140904			
→ 142205		SAW TOOTH 2 UP	R10 → P13 100 ^{ft} → 5000 ^{ft}
142205			
→ 144203		SAW TOOTH 2 DOWN	R14 → P17 5000 ^{ft} → 50 ^{ft}
144223			
→ 145726		SAW TOOTH 3 UP	R18 → P21 100 ^{ft} → 5000 ^{ft}
145726			
→ 150800		SAW TOOTH 3 DOWN	R22 → P25 FLOSO → 50 ^{ft}
150955			
→ 152422		SAW TOOTH 4 UP	R25 → P29 100 ^{ft} → FLOSO
152422			
→ 154011		SAW TOOTH 4 DOWN	R29 → P33 FLOSO → 50 ^{ft}
154114			
→ 155122		SAW TOOTH 5 UP	R33 → R35 100 ^{ft} → 2000 ^{ft}
			End of Tape

VIDEO TAPE LOG

Flight No **A** 572

Project TACIA.....

Date 19 08 97

Tape No #2..... User CHEMIST.S..... Retention Period INDEF.....

Retention Period INDEF.....[illegible]

VIDEO TAPE LOG

Flight No **A**572.....

Project TACIA.....

Date 19 08 97

Tape No #3..... User CNEMISTS.....

Retention Period INDEF

[illegible]

FUEL SUMMARY		lbs
Start/Taxy	:	1000
Plan Fuel	:	27131
Diversion	:	1500
Min Overhead	:	5700
Contingency	:	543
Extra Fuel	:	0
Reqd Start Fuel:		35874

T/O Fuel	:	49000
Plan Fuel	:	27131
Actual Reserve	:	21869
Hold Fuel Flow	:	4500
Rsv Endurance	:	4.51
Flt Plan Time	:	5.02
Total Endurance:		9.53

WEIGHT SUMMARY		lbs
ZFW	:	98000
Ramp Fuel	:	50000
Ramp Weight	:	148000
Take Off Weight:		147000
Landing Weight	:	119869

WAYPOINTS

EGDL	00513'	N5130.6	W00159.4
BHD	112.70	N5023.9	W00329.6
SKERY		N5000.0	W00310.3
ORTAC		N5000.0	W00200.3
NEVIL		N5000.0	W00021.6
HARDY		N5028.3	E00029.5
51N01#	CHANEL	N5100.0	E00120.0
51#03E	OSTEND	N5130.0	E00300.0
52#04E	TACIA	N5255.0	E00400.0
53#04#	TACIA	N5330.0	E00440.0
54#04#	TACIA	N5405.0	E00440.0
54#01#	TACIA	N5405.0	E00140.0
52#02#	TACIA	N5230.0	E00230.0
DTYEST		N5223.0	W00029.0
DTY	116.40	N5210.8	W00106.7
DTYWST		N5157.0	W00146.0
EGDL	00513'	N5130.6	W00159.4

(c) RJCVC 1991

OBSERVATIONS

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DATE 19 AUG 97	FTINo 01	FLTNo A572	NAV A4618
DEPARTURE AIRFIELD LYNCHAM			TAKE OFF TIME 1252
ATIS 'M' 25 GL 170/15 E 1000 H 1017 FS Ø -10 20 H 440'			
ATC CLEARANCE			

TIME	FIN 1012			IAS	TAS	W/V	ALT FL	QNH	GPS	RUN IDENT
	HDG	DR	G/S						LAT/LONG	
1302 ⁵⁰							F060	H 1017	5111.7 00232.8W	R1
1307 ³⁴							F060	/	—————	R1
1325 ³⁰							F080	/	5008.8 00317.6	ER1/P1
1334 ³⁵									5000.9 00234.8	EP1.1/
1334 ⁵²							100'		5000.9 00238.5	R2
1337 ⁵²							800'		5000.6 00224.2	ER2/P2
1339 ²⁹							800'		5000.7 00216.6	ER2/R3
1342 ⁰³							800'		5001.0 00204.2	ER3/P3
1343 ⁴³							2000		5000.8 00156.4	ER3/R4
1347 ³⁶							2000'		5000.1 00137.5	ER4/P4
1349 ⁴¹							4000'		5000.1 00127.4	ER4/R5
1352 ⁰⁶							5000'		4959.9 00115.2	ER5/P5
1353 ⁰²							5000'		4959.9 00110.6	ER5/R6
1355 ²⁰							5000'		5000.0 00058.9	ER6/P6
1356 ²⁰							4000'		4959.9 00054.0	ER6/R7
1359 ⁴⁵							4000'		5000.4 00037.1	ER7/P7
1401 ⁴⁸							2000'		5000.2 00027.2	ER7/R8
1403 ³⁹							2000'		5001.5 00018.8	ER8/P8
1405 ³¹							800'		5005.2 00011.9	ER8/R9
1407 ¹³							800'		5008.5 00006.1	ER9/P9
1409 ⁰⁷							50/100		5012.1 00000.3W	EP9/R10
1411 ⁰⁴							100'		5015.9 00007.2E	ER10/P10
1412 ²⁹							800'		5018.6 00012.0	EP10/R11
1413 ⁵³							800'		5021.4 00017.0	ER11/P11
1415 ⁵⁴							2000'		5025.5 00024.3	EP11/R12

ARRIVAL AIRFIELD	LANDING TIME
ATC CLEARANCES	
ATIS	

DATE	FTI No	FLT No	NAV
DEPARTURE AIRFIELD			TAKE OFF TIME
ATIS			
ATC CLEARANCE			

TIME	FIN 1012			IAS	TAS	W/V	ALT FL	QNH	GPS	RUN IDENT
	HDG	DR	G/S						LAT/LONG	
1417 ¹⁷							2000'	1017	5028.4 00029.4	EP12/P12
1418 ⁴⁶							3500		5031.6 00035.0	EP12/R13
1420 ⁴⁰							3500'		5035.9 00041.5	EP13/P13
1422 ⁰⁵							5000		5039.0 00046.8	EP13/R14
1426 ¹⁶							5000's		5048.4 00102.0	EP14/P14
1427 ⁴²							3500		5051.7 00107.0	EP14/R15
1433 ²²							3500's		5104.0 00127.8	EP15/P15
1434 ⁵¹							2000		5105.9 00134.8	EP15/R16
1436 ³¹							2000's		5107.9 00142.2	EP16/P16
1438 ⁴¹							800		5110.4 00151.7	EP16/R17
1440 ¹⁵							800's		5112.2 00158.4	EP17/P17
1442 ^{03/23}							50/100		5114.1 00206.1	EP17/R18
1444 ⁰²							100'		5116.3 00214.2	EP18/P18
1445 ³⁷							800		5118.1 00220.9	EP18/R19
1447 ²³							800'		5120.2 00228.9	EP19/P19
1449 ³⁷							2000		5122.6 00238.2	EP19/R20
1451 ⁰²							2000'		5124.3 00244.6	EP20/P20
1452 ³²							3500	1020	5126.0 00250.9	EP20/R21
1455 ⁵²							3500'		5132.5 00302.8	EP21/P21
1457 ²⁶							FO50		5137.0 00305.4	EP21/R22
1457 ⁴⁹							FO50's		5144.0 00310.1	EP22/P22
1502 ⁴⁹							2000		5152.9 00316.1	EP22/R23
1504 ³⁵							2000's		5157.9 00319.5	EP23/P24
1506 ³²							800'		5203.4 00323.2	EP24/R24
1508 ⁰⁹							800's		5207.7 00326.0	EP24/P25

ARRIVAL AIRFIELD	LANDING TIME
ATC CLEARANCES	
ATIS	

DATE	FTI No	FLT No	NAV
DEPARTURE AIRFIELD			TAKE OFF TIME
ATIS			
ATC CLEARANCE			

TIME	FIN 1012			IAS	TAS	W/V	ALT FL	QNH	GPS	RUN IDENT
	HDG	DR	G/S						LAT/LONG	
1509 ⁴⁵ 55							50/100	1020	5212.0 ^N 00328.9 ^E	EP25/EP25
1511 ³²							100'		5216.6 ^N 00332.4 ^E	EP25/EP26
1513 ⁰⁷							800'		5220.9 00335.3	EP26/EP26
1514 ⁵³							800'		5225.5 00339.5	EP26/EP27
1517 ¹⁷							2000		5231.6 00345.4	EP27/EP27
1519 ⁰²							2000'		5236.3 00349.5	EP27/EP28
1520 ⁴⁰							3500		5240.8 00353.3	EP28/EP28
1522 ³⁵							3500'		5246.2 00357.2	EP28/EP29
1524 ²²							1050		5252.2 00358.1	EP29/EP29
1526 ⁵⁷							1050		5300.3 00401.2	EP29/EP30
1528 ³²							3500		5303.9 00407.0	EP30/EP30
1530 ²⁰							3500		5308.1 00413.5	EP30/EP31
1531 ⁴⁸							2000		5311.4 00418.7	EP31/EP31
1533 ³⁵							2000		5315.9 00423.7	EP31/EP32
1536 ¹⁷							800'		5322.4 00431.9	EP32/EP32
1538 ¹⁶							800'		5327.2 00437.3	EP32/EP33
1540 ¹¹							50'		5331.7 00442.8	EP33/EP33
1541 ¹⁴							100'		5334.5 00444.2	R 33
1542 ⁴⁹							100'		5339.3 00443.5	EP33/EP34
1544 ¹⁹							800'		5343.9 00442.9	EP34/EP34
1546 ³¹							800'		5351.1 00441.9	EP34/EP35
1548 ⁵²							2000		5358.5 00441.0	EP35/EP35
1551 ²²							2000		5406.1 00439.1	EP35/EP36
1552 ⁵⁴							3500		5406.4 00430.2	EP36/EP36
1600 ³⁰							3500		5405.6 00346.8	EP36/EP37

ARRIVAL AIRFIELD	LANDING TIME
ATC CLEARANCES	
ATIS	

DATE	FTI No	FLT No	NAV
DEPARTURE AIRFIELD			TAKE OFF TIME
ATIS			
ATC CLEARANCE			

TIME	FIN 1012			IAS	TAS	W/V	ALT FL	QNH	GPS	RUN IDENT
	HDG	DR	G/S						LAT/LONG	
1601 ⁵⁸							5000'	1020	5405-6 00337-9	EP37/R 37
1607 ²²							5000'		5403.6 00307.0	EP37/P 38
1608 ⁵⁴							3500'		5403-8 00257.5	EP38/R 38
1611 ¹⁵							3500'		5403.8 00243.5	EP38/P 39
1612 ⁴⁷							2000'		5404-0 00235.0	EP39/R 39
1614 ¹⁷							2000'	1014	5404-2 00226.3	EP39/P 40
1616 ³¹							800'		5404-8 00213.8	EP40/R 40
1618 ⁰³							800'		5405-0 00205-1	EP40/P 41
1619 ^{52/20⁰⁴}							50'/100'	1020	5405.5 00155.0	EP41/R 41
1621 ⁵⁶							100'		5406.1 00143.8	EP41/P 42
1623 ⁴⁹							100'		5403.4 00137.4	P 42
1625 ²⁵							800'		5359.2 00139.7	EP42/R 42
1627 ⁴⁰							2000'		5353.0 00143.3	EP42/P 43
1630 ⁰⁷							2000'		5346.1 00146.9	EP43/R 43
1631 ¹⁸							2000'		5343.0 00148.4	EP43/P 44
1632 ⁵⁵							3500'		5338.4 00150.6	EP44/R 44
1635 ⁵¹							3500'		5329.7 00154.8	EP44/P 45
1637 ²⁰							5000'		5324.9 00156.8	EP45/R 45
1639 ⁰⁴							5000'		5319.6 00159.6	EP45/P 46
1640 ³⁷							3500'		5314.9 00201.8	EP46/R 46
1647 ⁴²							3500'		5253.6 00213.2	EP46/P 47
1649 ¹³							2000'		5249.2 00215.7	EP47/R 47
1650 ⁴⁶							2000'		5244.6 00218.4	EP47/P 48
1653 ¹¹							800'		5237.5 00222.4	EP48/R 48
1654 ¹⁶							800'		5232.5 00255.5	EP48/P 49

ARRIVAL AIRFIELD	LANDING TIME
ATC CLEARANCES	
ATIS	

DATE	FTI No	FLT No	NAV
DEPARTURE AIRFIELD			TAKE OFF TIME
ATIS			
ATC CLEARANCE		AF140 AF240	

[illegible]

ARRIVAL AIRFIELD	LANDING TIME 1220
ATC CLEARANCES <i>R/252 W 170/037 K 1000/1017 Y 020</i>	1250
ATIS <i>#50</i>	

7-00 DAY

NITE

Message from Straits of Dover ^{Satcom message to Paul Hanks via N. Price}
Flight v. interesting. High O₃ (up to 120 ppbv at 100 ft). NO_y up to 35 ppbv. CO over 300 ppbv.

We strongly suggest tomorrow's flight is another model validation exercise in ~~an~~ a similar area. Large discrepancies between model output and observations.

This experiment is strongly supported by SAP, KSC and other modellers.

Stuart + Kathy.

Flight No. A572

Date: 19/8/97

Operator: DWA

Page 2 of 4

G.M.T.			PCASP			FSSP			2D-C			HVPS / 2D-P			REMARKS
DRS Time	Conc/cc	Mean R	Conc/cc	Max Size	Ref	Conc/L	Max Size	Habit	Conc/m ³	Max Size	Habit				
144537	2100	0.09	—	—	—	—	—	—	—	—	—	START R19	800'	P18/END	
144937	950	0.08	—	—	—	—	—	—	—	—	—	END R19	—	P19 START	
145102	515	0.08	—	—	—	—	—	—	—	—	—	START R20	—	P19 END	
145232	150	0.09	—	—	—	—	—	—	—	—	—	END R20	2000'	START P20	
145552	1200	0.09	—	—	—	—	—	—	—	—	—	START R21	2500'	END P20	
145720	800	0.09	—	—	—	—	—	—	—	—	—	END R21	3500'	START P21	
145949	50	0.09	—	—	—	—	—	—	—	—	—	START R22	5000'	END P21	
150149	4000	0.09	—	—	—	—	—	—	—	—	—	END R22	5000'	START P22	
150435	2500	0.09	—	—	—	—	—	—	—	—	—	START R23	2000'	END P22	
150632	2100	0.08	—	—	—	—	—	—	—	—	—	END R23	2000'	START P23	
150808	2500	0.08	—	—	—	—	—	—	—	—	—	START R24	800'	END P24	
150945	2500	0.08	—	—	—	—	—	—	—	—	—	END R24	800'	START P25	
150958	2500	0.08	—	—	—	—	—	—	—	—	—	START R25	100'	END P25	
151132	2170	0.08	—	—	—	—	—	—	—	—	—	END R25	—	START P26	
151307	2100	0.08	—	—	—	—	—	—	—	—	—	START R26	800'	END P26	
151453	2300	0.08	—	—	—	—	—	—	—	—	—	END R26	—	START P27	
151717	200	0.08	—	—	—	—	—	—	—	—	—	START R27	2000'	END P27	
151902	400	0.08	—	—	—	—	—	—	—	—	—	END R27	—	START P28	
152040	1800	0.08	—	—	—	—	—	—	—	—	—	START R28	3500'	END P28	
152225	2100	0.08	—	—	—	—	—	—	—	—	—	END R28	—	START P29	
152422	75	0.08	—	—	—	—	—	—	—	—	—	RUN R29	5000'	END P29	
152657	65	0.08	—	—	—	—	—	—	—	—	—	END R29	—	START P30	
152832	2700	0.09	—	—	—	—	—	—	—	—	—	START R30	3500'	END P30	
153020	2500	0.09	—	—	—	—	—	—	—	—	—	END R30	—	START P31	
153146	2000	0.08	—	—	—	—	—	—	—	—	—	START R31	2000'	END P31	
153335	1900	0.09	—	—	—	—	—	—	—	—	—	END R31	—	START P32	
153611	1600	0.09	—	—	—	—	—	—	—	—	—	START R32	800'	END P32	
153816	2000	0.09	—	—	—	—	—	—	—	—	—	END R32	—	START P33	
154011	2400	0.09	—	—	—	—	—	—	—	—	—	START R33	100'	END P33	
154114	2250	0.08	—	—	—	—	—	—	—	—	—	END R33	1000'	START P34	
154249	2200	0.08	—	—	—	—	—	—	—	—	—	START R34	800'	END P34	
154410	1200	0.08	—	—	—	—	—	—	—	—	—	END R34	—	START P35	
154636	1050	0.09	—	—	—	—	—	—	—	—	—	START R35	2000'	END P35	
154852	300	0.08	—	—	—	—	—	—	—	—	—				

CLOUD PHYSICS LOG

Flight No. A572

Date: 9/18/97

Operator: DWA

Page 3 of 4

G.M.T. DRS Time	PCASP		FSSP			2D-C			HVPS / 2D-P			REMARKS
	Conc/cc	Mean R	Conc/cc	Max Size	Reff	Conc/L	Max Size	Habit	Conc/m ³	Max Size	Habit	
155122	1700	0.08										END R35 2000' START P36
155154	1200	0.08										START R36 3500' END P36
160030	500	0.1										END R36 " START P37
160158	275	0.1										START R37 5000' END P37
160722	300	0.1										END R37 " START P38
160854	1800	0.1										START R38 3500' END P38
161115	1650	0.11										END R38 " START P39
161247	1800	0.1										START R39 2000' END P39
161417	500	0.1										END R39 " START P40
161631	1600	0.1										START R40 800' END P40
161823	1500	0.1										END R40 " START P41
161952	3300	0.09										50' END P41
162004	"	"										START R41 100'
162156	3000	0.09										END R41 100'
162349	3000	0.09										100' START P42
162525	2000	0.08										START R42 800' END P42
1628	1250	0.08										END R42 " START P43
163007	980	0.09										START R43 2000' END P43
163118	800	0.1										END R43 " START P44
163255	1100	0.1										START R44 3500' END P44
163551	900	0.1										END R44 " START P45
163720	700	0.1										START R45 500' END P45
163904	600	0.1										END R45 " START P46
164037	600	0.1										START R46 3000' END P46
164742	400	0.1										END R46 " START P47
164920	1700	0.1										START R47 2000' END P47
165046	1600	0.1										END R47 " START P48
165311	2300	0.09										START R48 800' END P48
165456	1750	0.08										END R48 " START P49
165701	3000	0.08										60' END P49
165709	2500	0.08										START R49 100'
165839	2800	0.08										END R49 100' START P50
170010	3000	0.08										80' START P50
171230	50	0.1										1050' P50
171111												14500'

PCASP HETARAC ON

[illegible]

PAN GC Log

GC Sample record			Flight Number: <u>AS72</u>					Operator: <u>JS</u>					Date: <u>19/8/97</u>					
Sample No.	Time	Height	Channel 1					Channel 2				Channel 3				Comments		
			Optimisation = <u>6</u>					Optimisation = <u>6</u>				Optimisation = <u>6</u>						
			Back Flush = <u>40.6</u>					Back Flush = <u>41.2</u>				Back Flush = <u>39.1</u>						
			Flow rate = <u>4.7 ml/min</u>					Flow rate = <u>4.7</u>				Flow rate = <u>4.0</u>						
ST	SP	DT	DP	BT	ST	SP	DT	DP	ST	SP	DT	DP						
#1	133530	100'	524	1371					537	2602			509	-61			Pres concn CH2 Only	
#2	134350	2000'	525	1231					532	2440			509	-60				R24
#3	135026	3000'	524	1205					530	2307			507	-60				R25
#4	135826	5000'	522	1206					527	2301			504	-64				R26
#5	140942	400'	523	1352					524	2549			499	-60			R210	
#6	141622	2000'	523	1275					521	2725			496	-65			R212	
#7	142220	5000'	522	1165					519	2235			492	-65			R214	
#8	143210	3500'	521	1219					516	2328			490	-62			R215	
#10	143920	1000'	523	1323					514	2508			489	-61			R217	
#11	144600	1000'	521	1320					511	2506			487	-64				
#12	145150	3500'	521	1213					509	2326			484	-65			R220	
#13	150251	2000'	522	1275					507	2439			482	-66			R223	
#14	151019	100'	521	1345					505	2546			481	-62			R225	

PAN GC Log

GC Sample record			Flight Number: A572					Operator: 0025								Date: 19/8/97.			
Sample	Time	Height	Channel 1					Channel 2				Channel 3				Comments			
No.			Optimisation =					Optimisation =				Optimisation =							
			Back Flush =					Back Flush =				Back Flush =							
			Flow rate =					Flow rate =				Flow rate =							
			ST	SP	DT	DP	BT	ST	SP	DT	DP	ST	SP	DT	DP				
#15	152056	3500	522	1215				502	2347			474	-66			R28			
#16	152638	5200	521	1151				500	2294			477	-61						
#17	153000	800	521	1317				495	2514			474	-66			R32			
#18	154420	800	520	138				497	2526			473	-65			R35			
#19	155320	3500	520	1215				495	2343			472	-64			R36			
#20	160110	3500	520	1215				495	2345			472	-63			R38			
#21	161650	800	520	1319				495	2530			471	-61			R			
#22	162445	800	519	1314				493	2517			469	-65			R42			
#23	163000	2000	519	1272				492	2449			469	-65			R43			
#24	163750	5000	519	1155				493	2247			469	-65			R45			
#25	164930	2000	520	1274				493	2451			469	-61			R47			
#26	165725	100	520	1341				493	2568			469	-61			R49			
#27	181515	5000	520	1167				496	2324			468	0						

*** TOTAL PAGE: 001 ***

The map displays a complex weather pattern in the North Atlantic. A prominent low-pressure system (L) is located near 40°N, 50°W, with a central pressure of 992. To its east, a series of high-pressure systems (H) are situated, with pressures ranging from 1014 to 1025. A cold front (indicated by a line with triangles) extends from the high-pressure area near 1025 towards the southwest. Another cold front extends from the high-pressure area near 1018 towards the northwest. A warm front (indicated by a line with semicircles) is also visible. The map includes latitude and longitude lines, with pressure contours labeled with values like 1002, 1006, 1009, 1014, 1018, 1024, and 1025. Various weather symbols are used to denote fronts (cold, warm, occluded, stationary) and other features like low clouds (LC), low overcast (LO), and high overcast (HO). A scale of nautical miles and a geostrophic wind scale in knots are provided in the bottom right corner.

GEOSTROPHIC WIND SCALE IN KNOTS FOR 4 MB INTERVALS

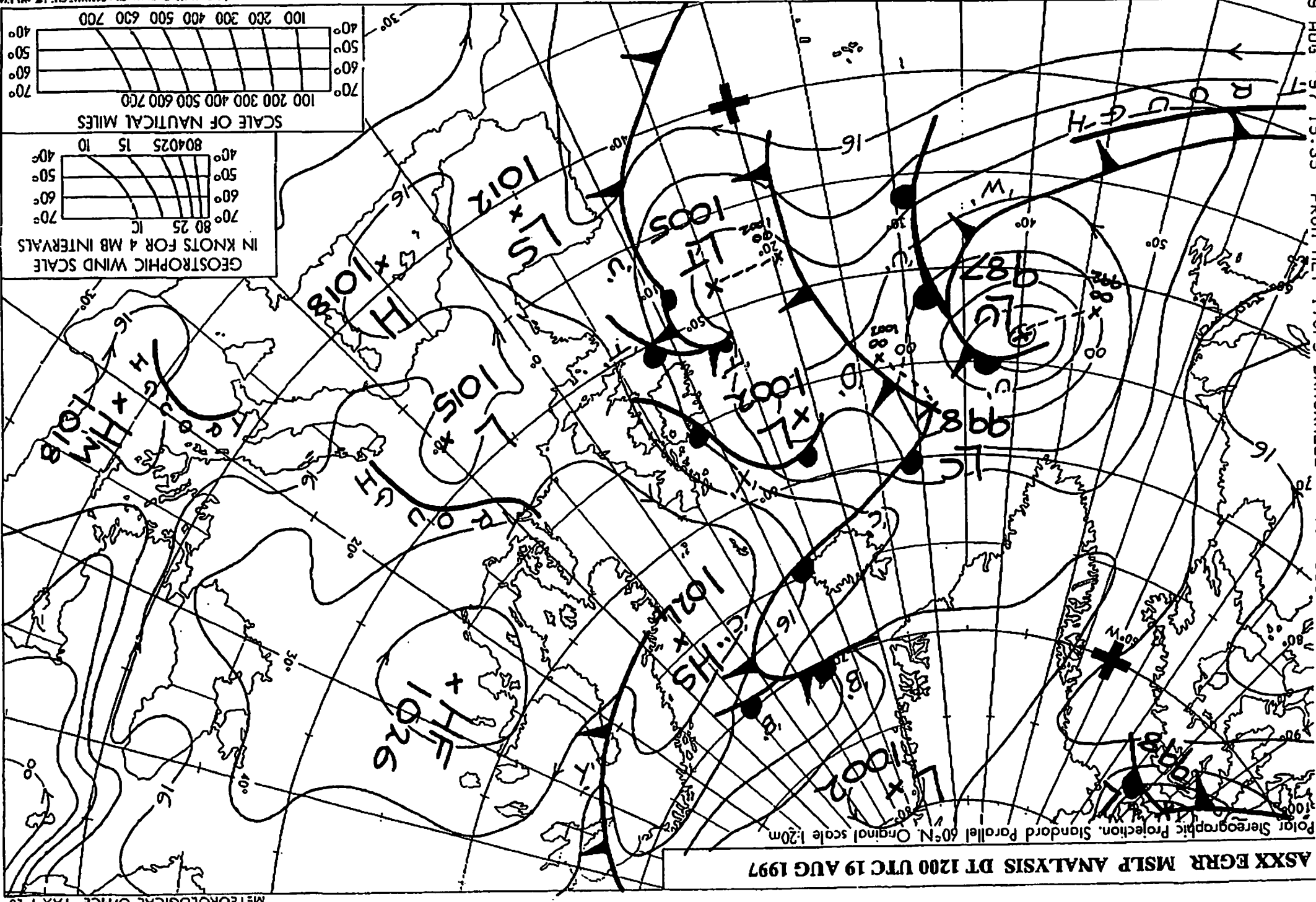
70°	80	25	10	70°	
60°				60°	
50°				50°	
40°				40°	
	80	40	25	15	10

SCALE OF NAUTICAL MILES

70°	00	200	300	400	500	600	700	70°
60°								60°
50°								50°
40°								40°
	100	200	300	400	500	600	700	

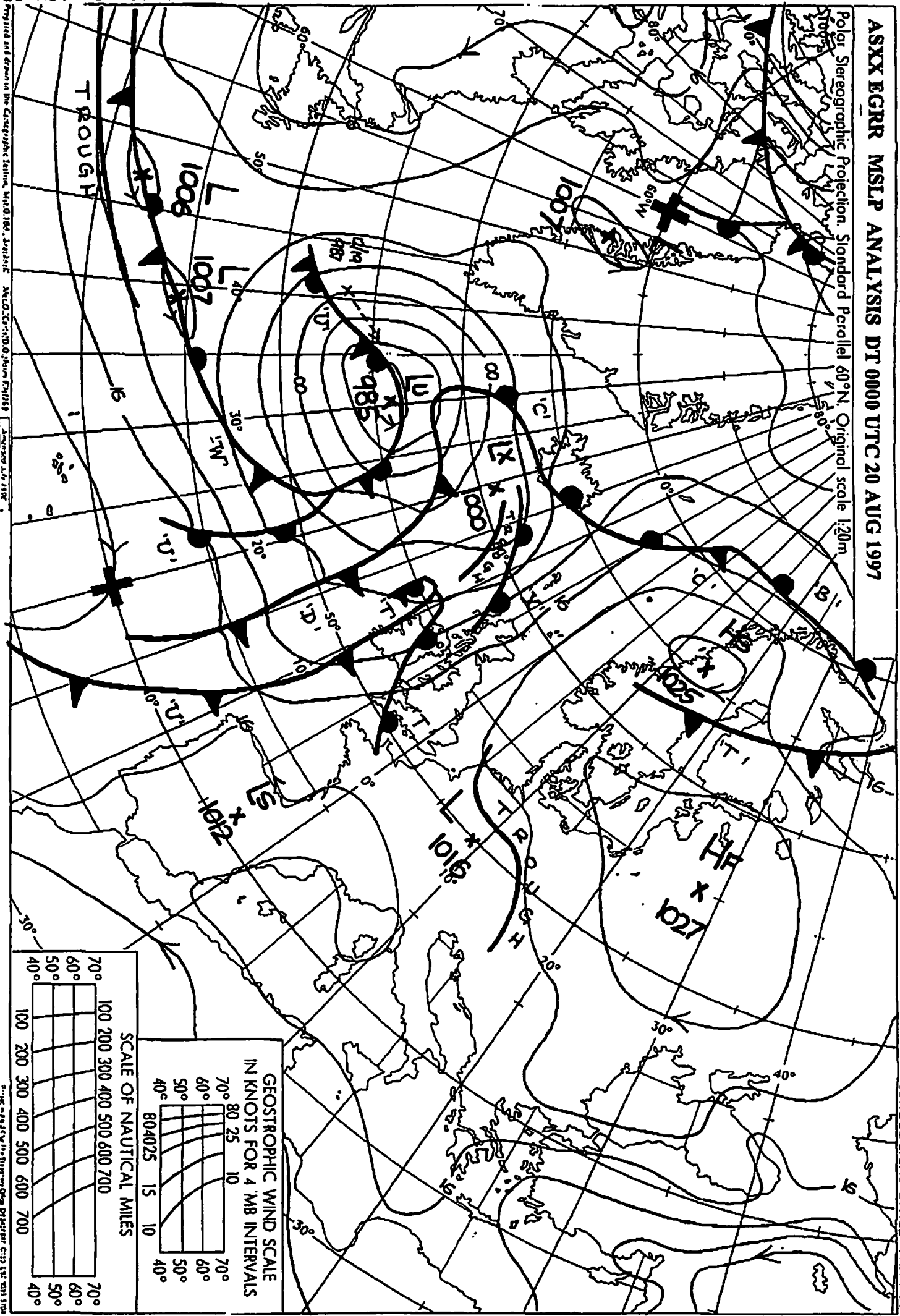
100 200 300 400 500 600 700

Prepared and found by the Cryptographic Service, AEC & Co., Inc. on 10/10/56



ASXX EGRR MSLP ANALYSIS DT 0000 UTC 20 AUG 1997

Polar Stereographic Projection. Standard Parallel 60°N. Original scale 1:20m



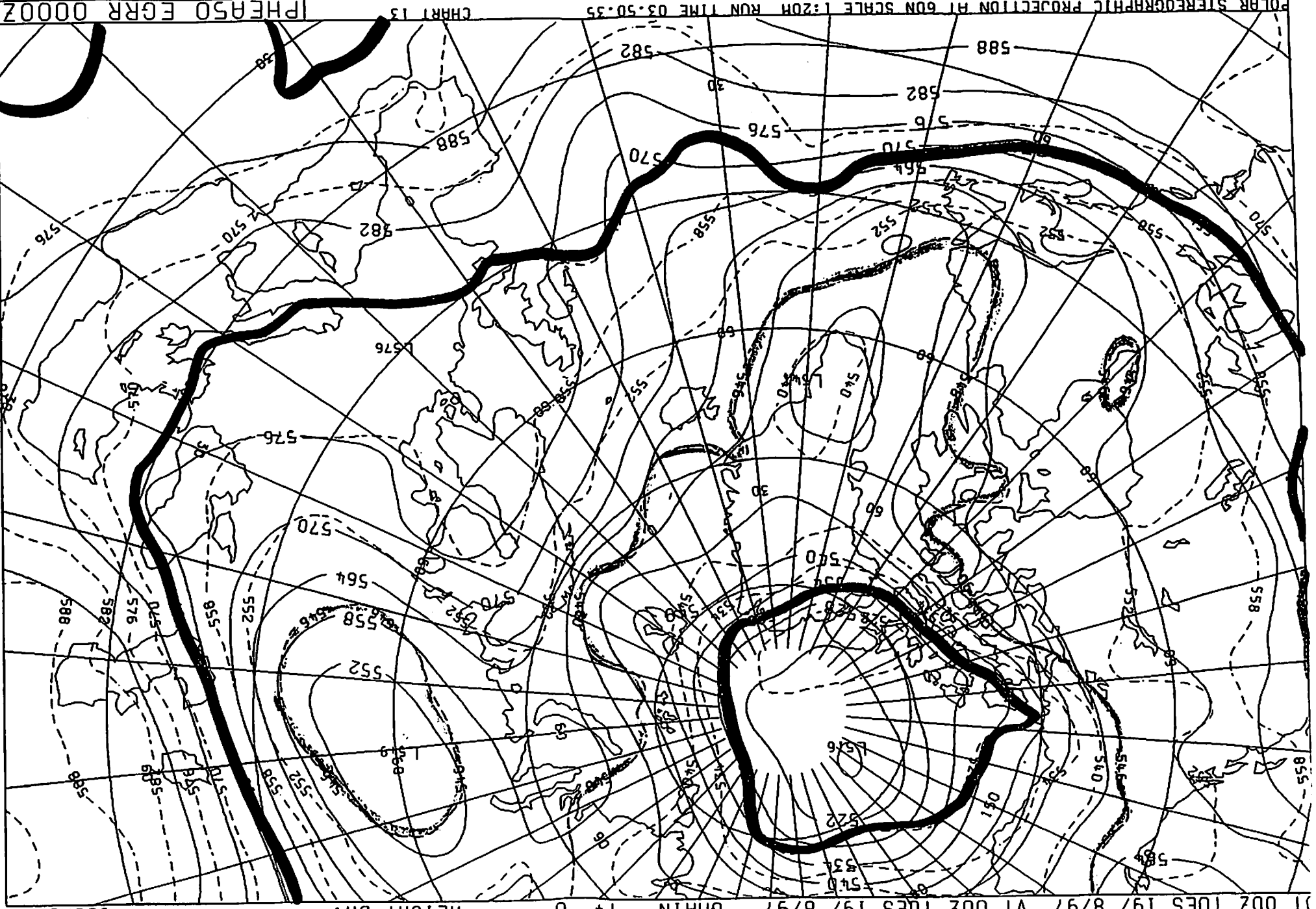
19 AUG 1977 7+0

500-1000MB
500MB

--- THICKNESS DM.
- - - HEIGHT DM.

0 T+ GMAIN

01 00Z TUES 19/ 8/97
VI 00Z TUES 19/ 8/97



19 AUG '97 04:03

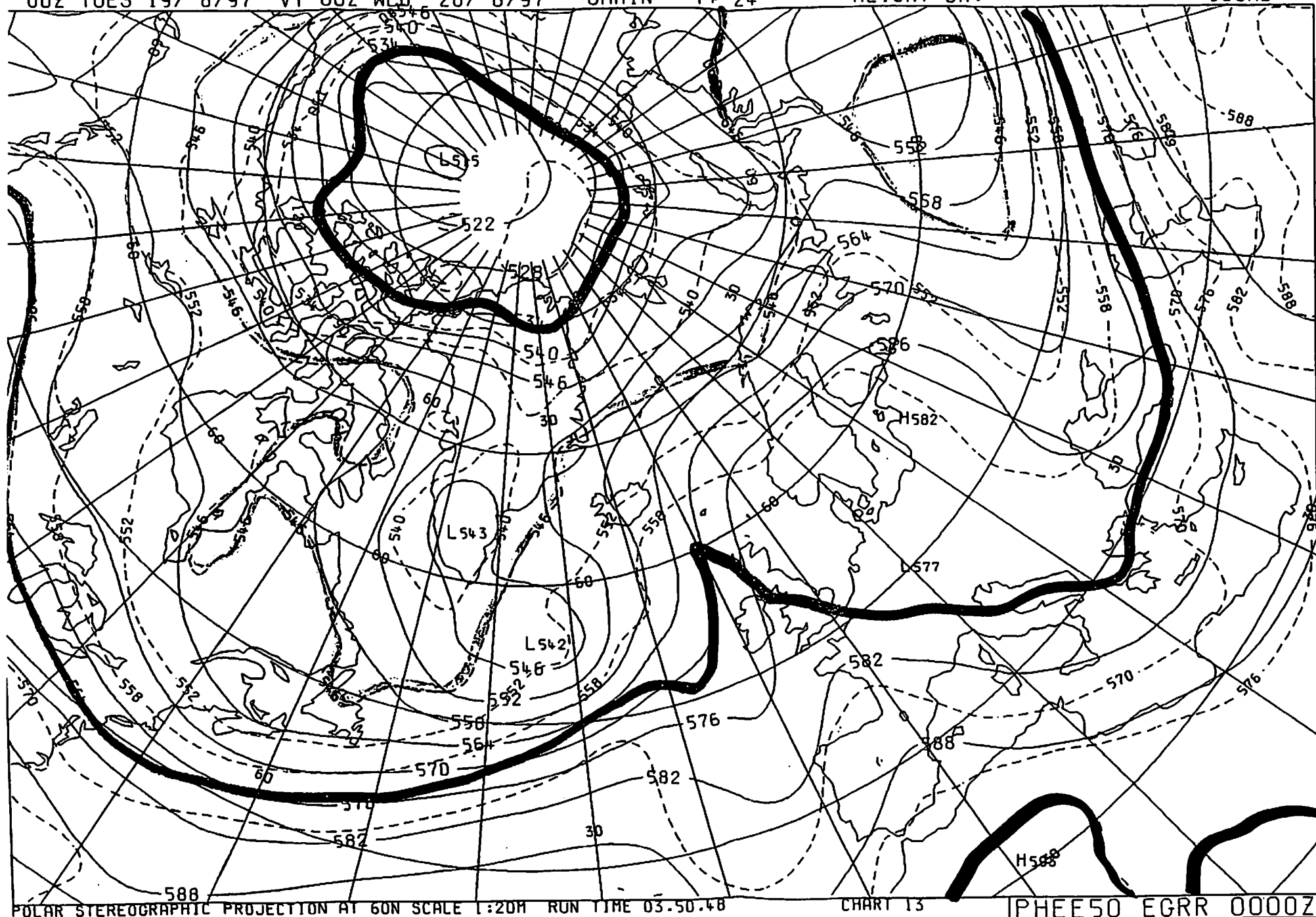
MET-OFFICE-ARTIFAX-2 PAGE. 001

20 AUG 1997 T+24

00Z TUES 19/ 8/97 VT 00Z WED 20/ 8/97 GMAIN T+ 24

- - - THICKNESS DM.
HEIGHT DM.

500-1000MB
500MB



MET_OFFICE_ARTIFAX_3 PAGE.001

19 AUG '97 04:05

POLAR STEREOGRAPHIC PROJECTION AT 60N SCALE 1:20M RUN TIME 03.50.48

CHART 13

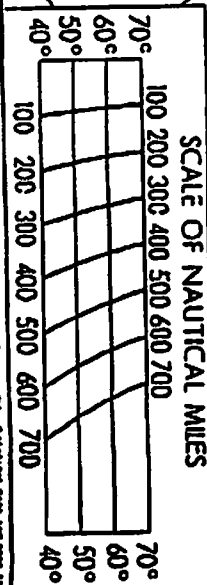
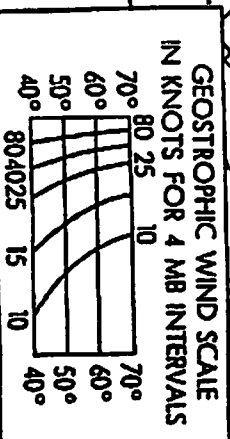
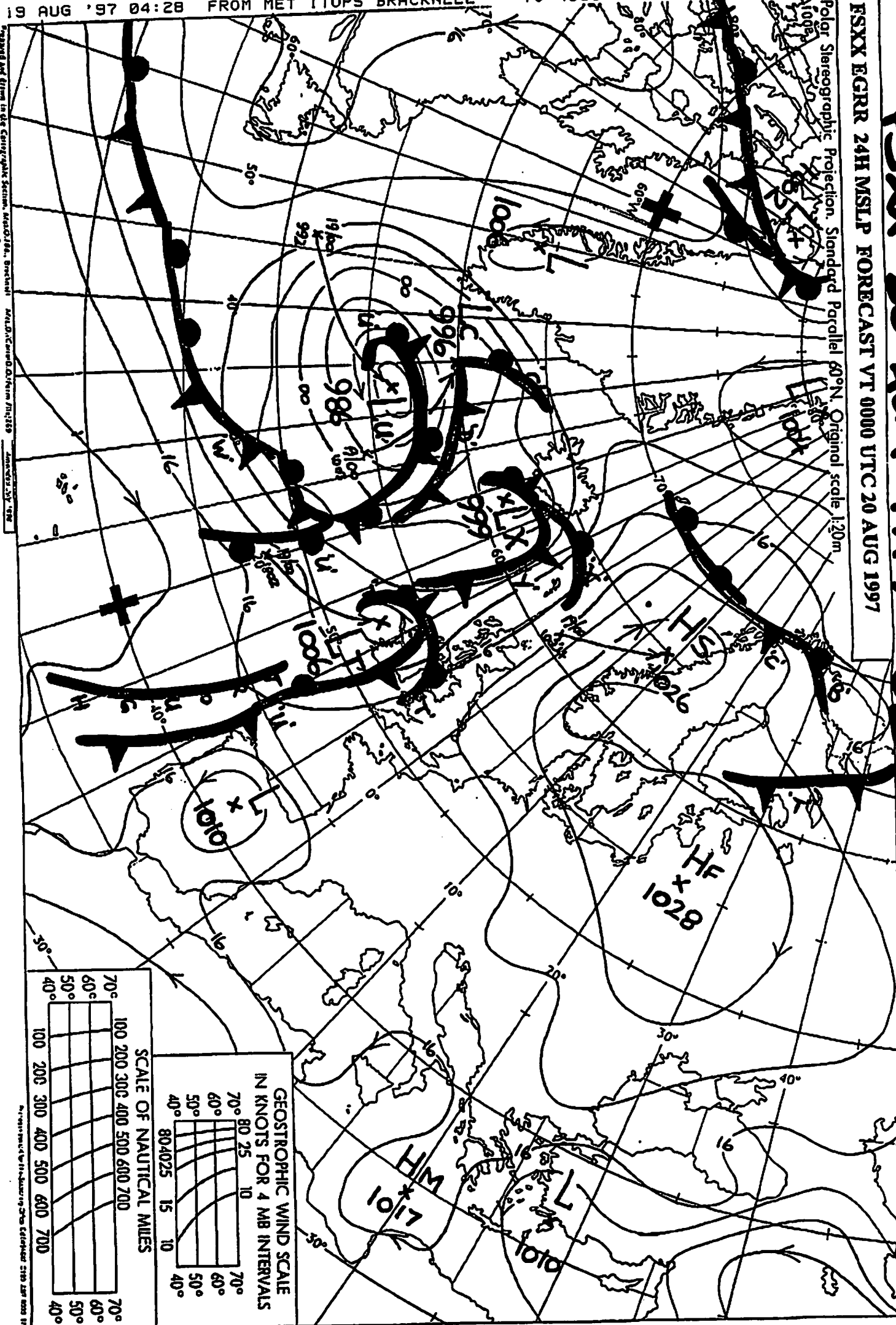
PHEE50 EGRR 0000Z

FSXX 20 AUG 1997 05

FSXX EGRR 24H MSLP FORECAST VT 0000 UTC 20 AUG 1997

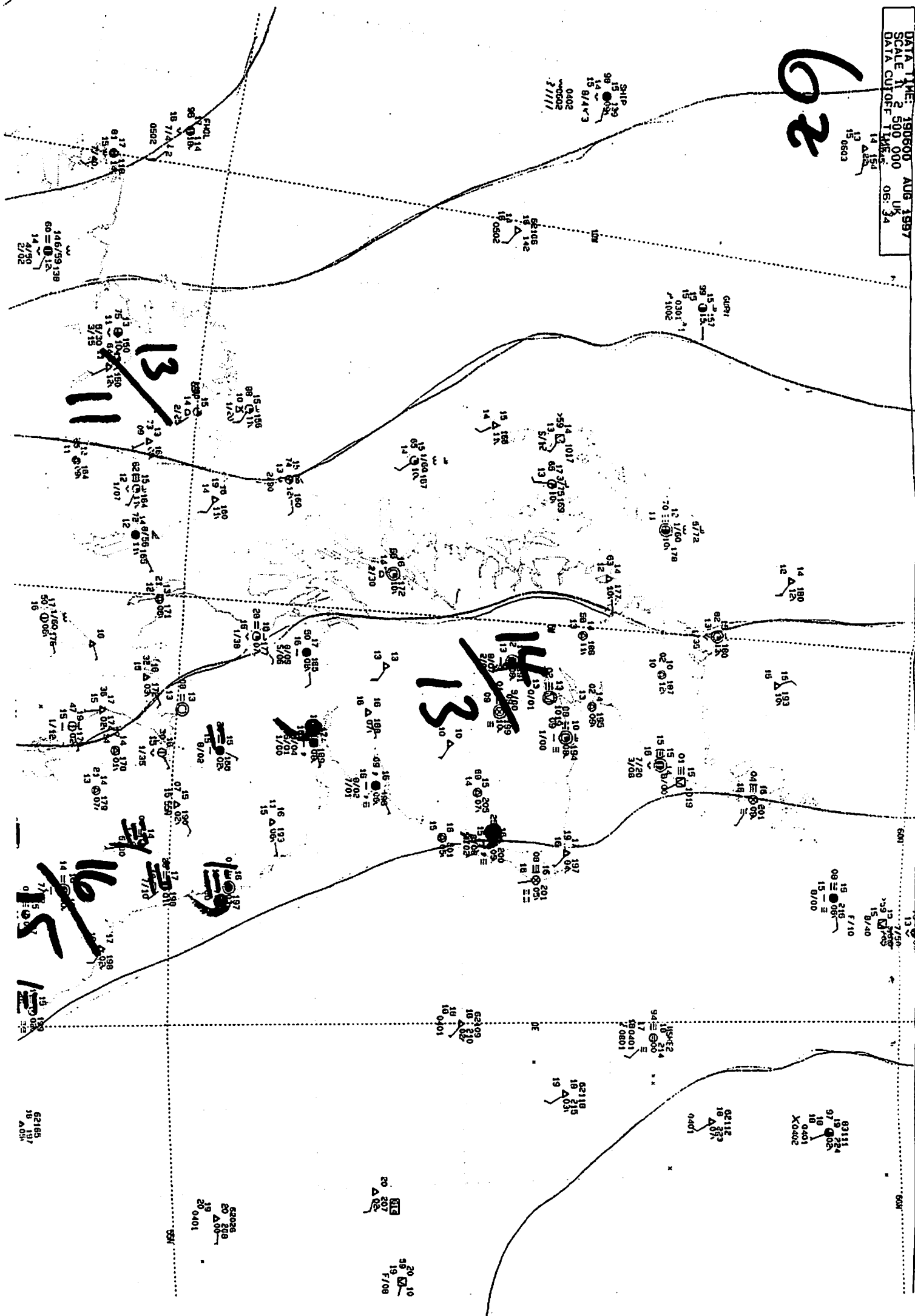
METEOROLOGICAL OFFICE FAX F 28

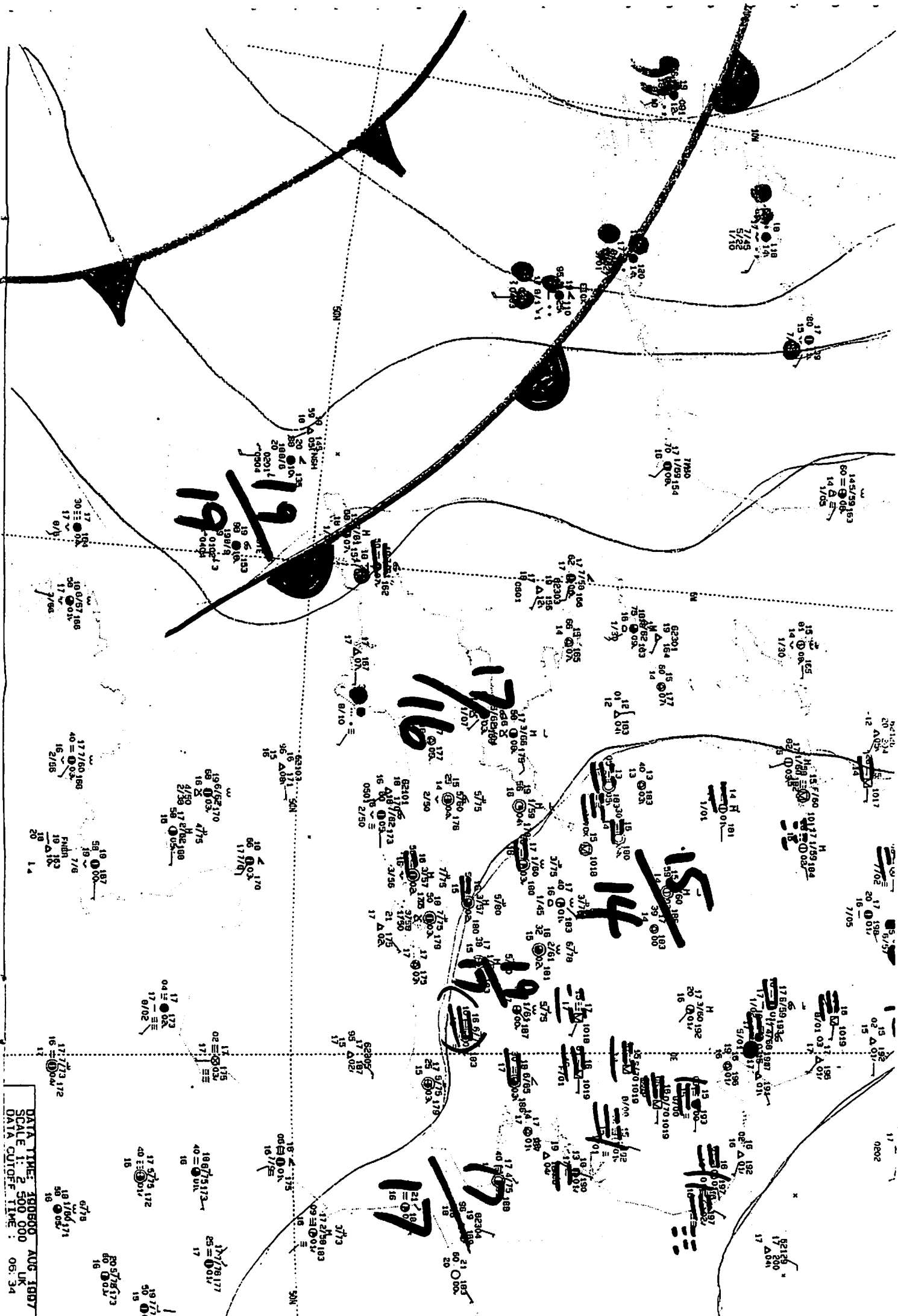
Polar Stereographic Projection. Standard Parallel 60°N. Original scale 1:20m



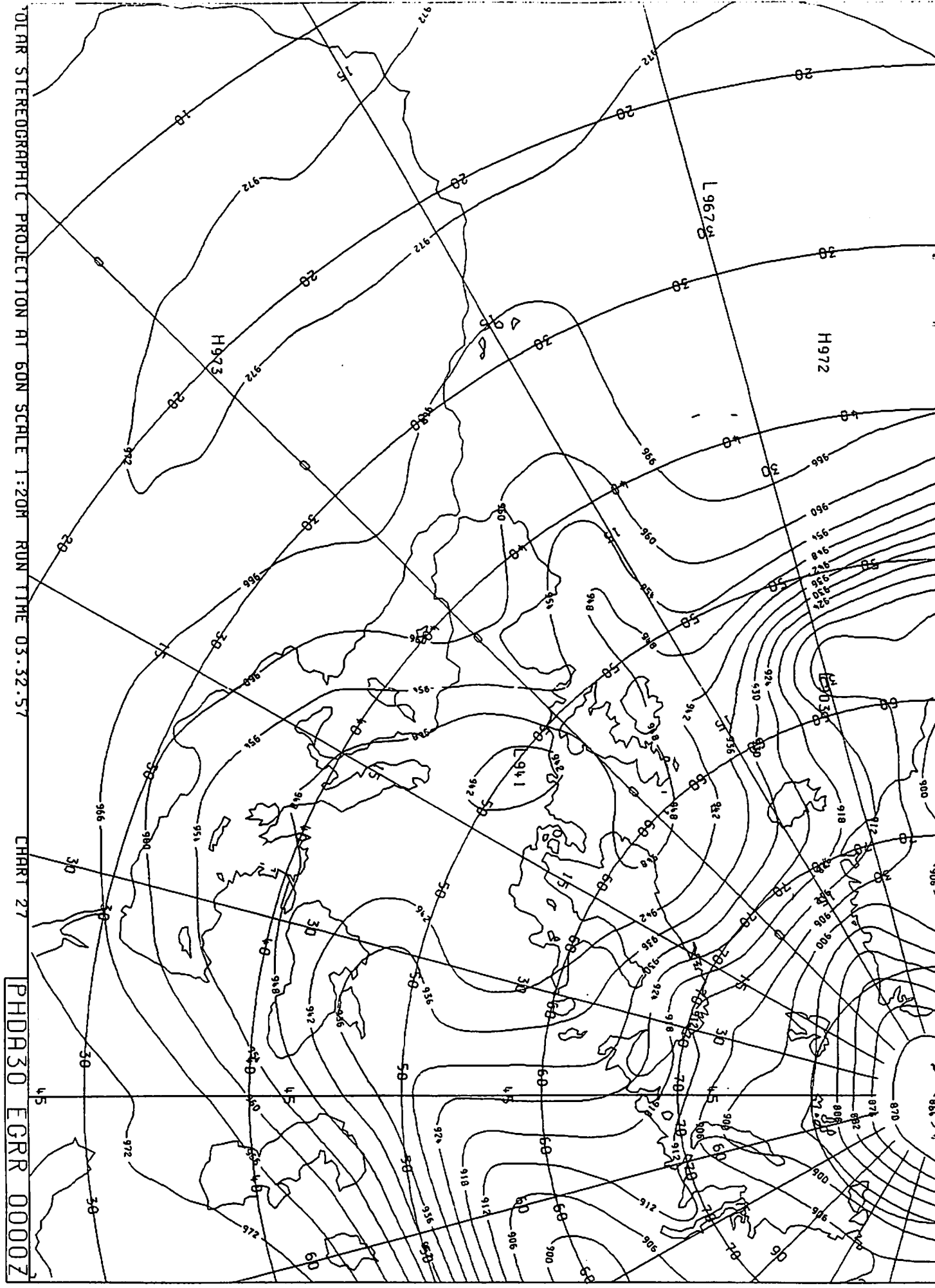
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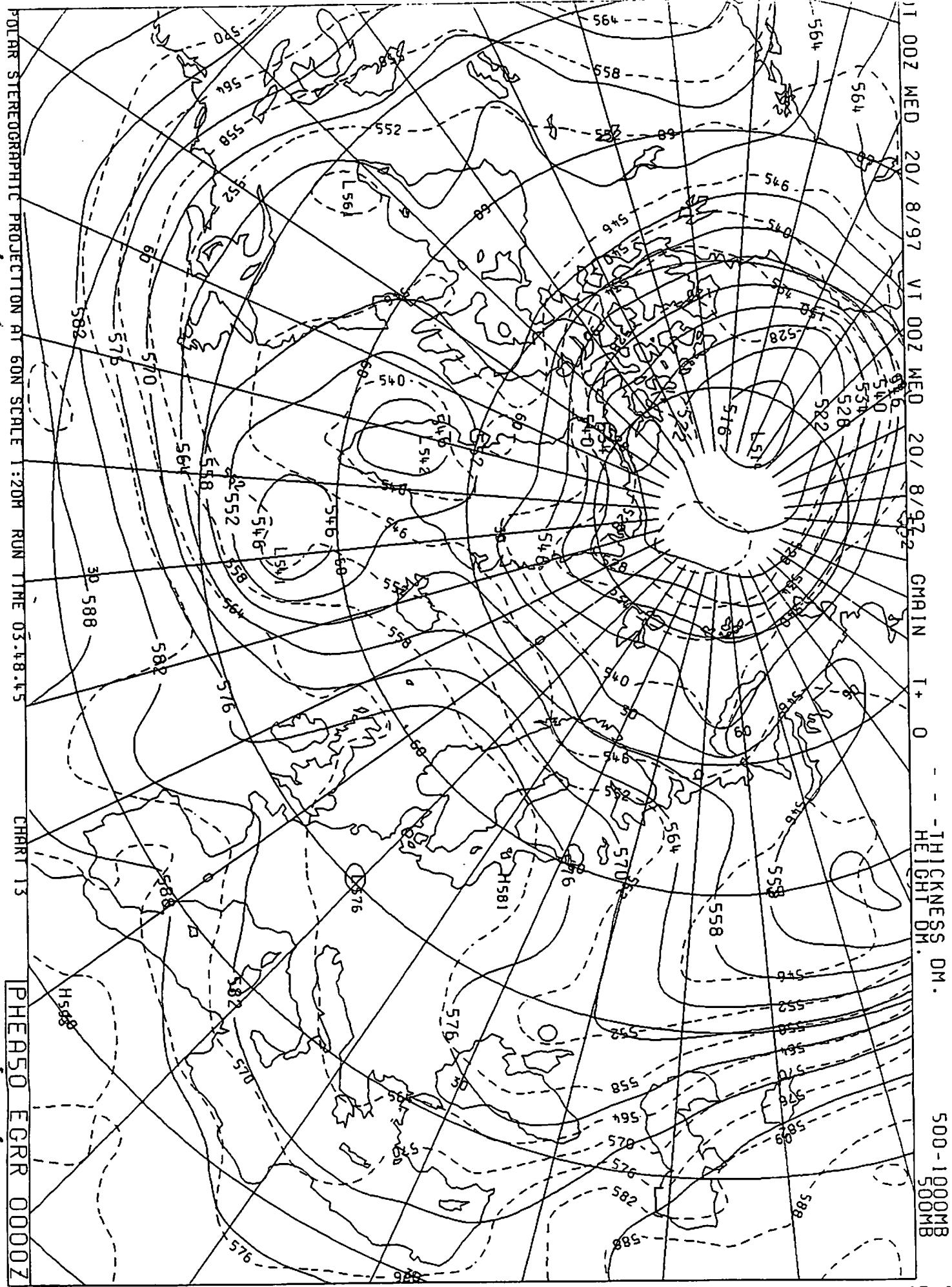
62



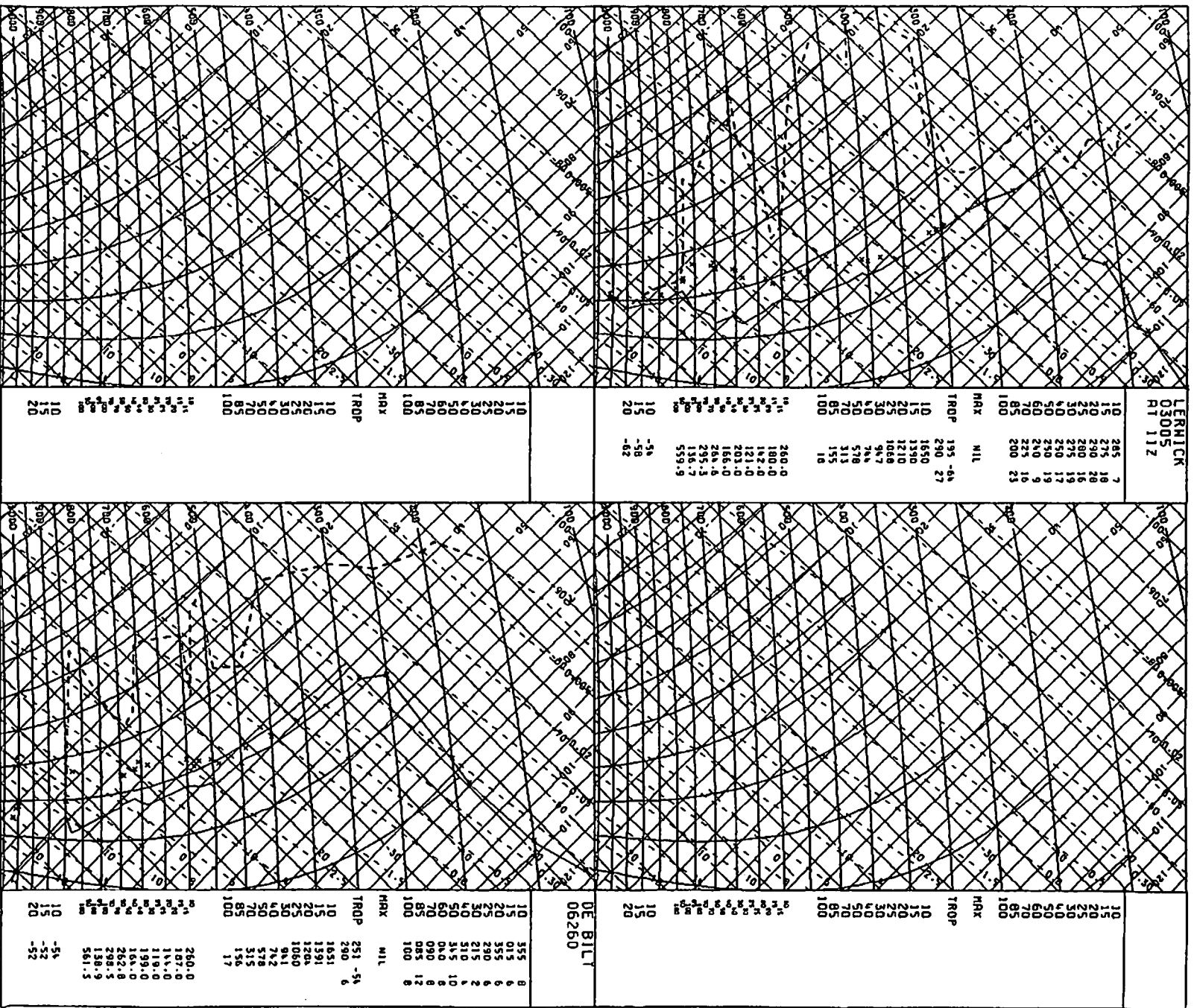


DATA TIME: 180500 AUG 1997
SCALE 1: 2 500 000 UK
DATA CUTOFF TIME: 06:34





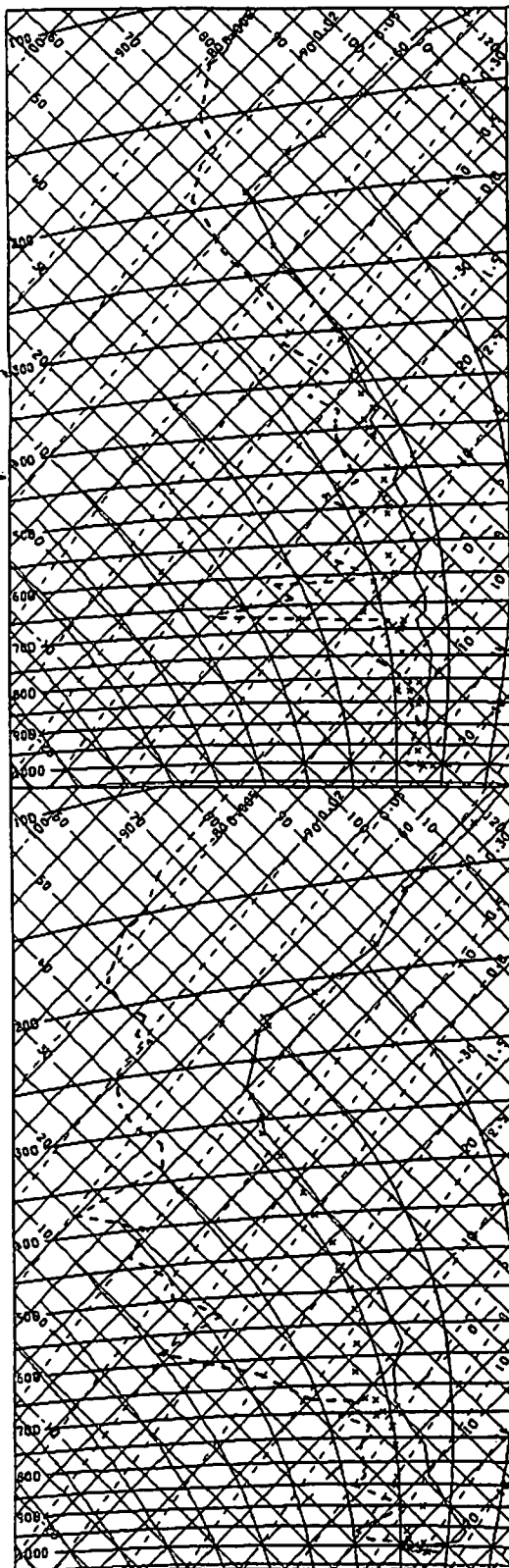
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HEIGHT DM. 500MB



FRCIT 4-UP
19 AUG '97 13:45

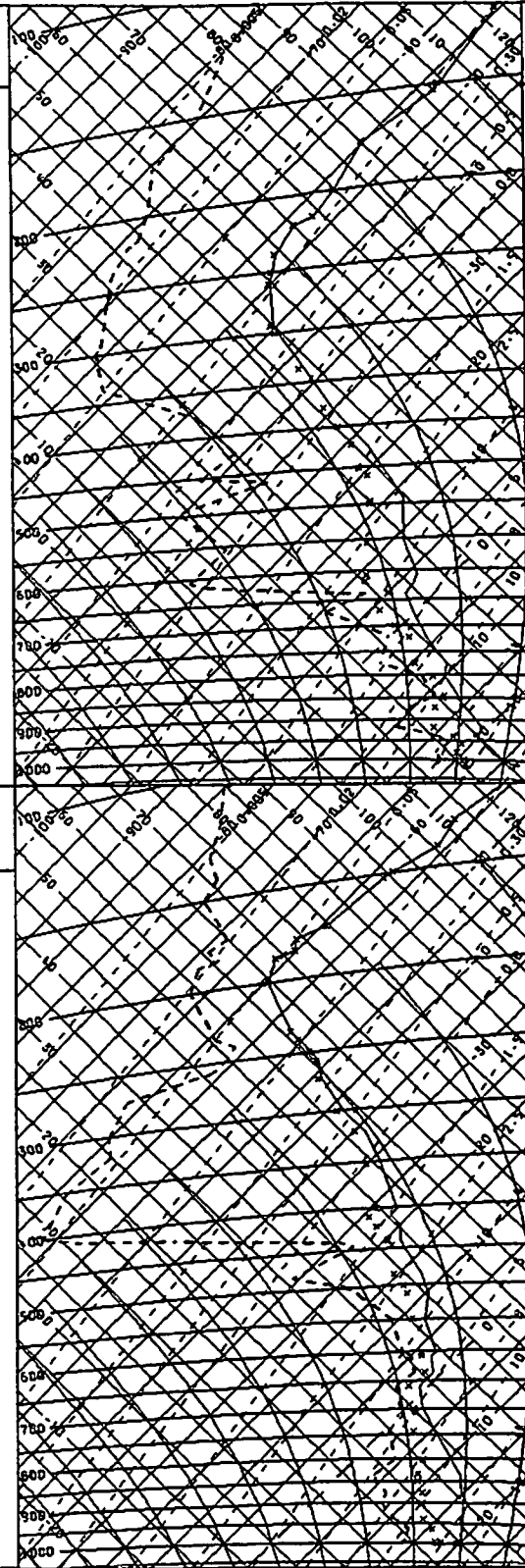
122 19 AUG 1997

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CAMBORNE 03808		
10	260	6
15	285	20
20	270	25
25	280	20
30	285	22
40	255	13
50	200	15
60	225	14
70	210	14
85	180	18
100		
MAX NIL		
TROP 194 -62		
10	1653	
15	1397	
20	1218	
25	1075	
30	951	
40	766	
50	579	
60	313	
85	152	
100	14	
11 256.0		
12 179.0		
13 143.0		
14 124.0		
15 205.0		
16 167.0		
17 266.2		
18 298.7		
19 138.2		
20 564.9		
10 -56		
15 -59		
20 -60		

HEMSBY 03496 AT 112		
10	355	8
15	335	10
20	345	21
25	355	23
30	350	21
40	335	22
50	325	8
60	025	3
70	CALM	
85	150	15
100		
MAX NIL		
TROP 221 -56		
10	1651	
15	1391	
20	1205	
25	1052	
30	942	
40	743	
50	578	
60	316	
85	156	
100	17	
11 260.0		
12 186.0		
13 143.0		
14 120.0		
15 199.0		
16 165.0		
17 262.5		
18 298.6		
19 138.9		
20 561.1		
10 -56		
15 -54		
20 -52		



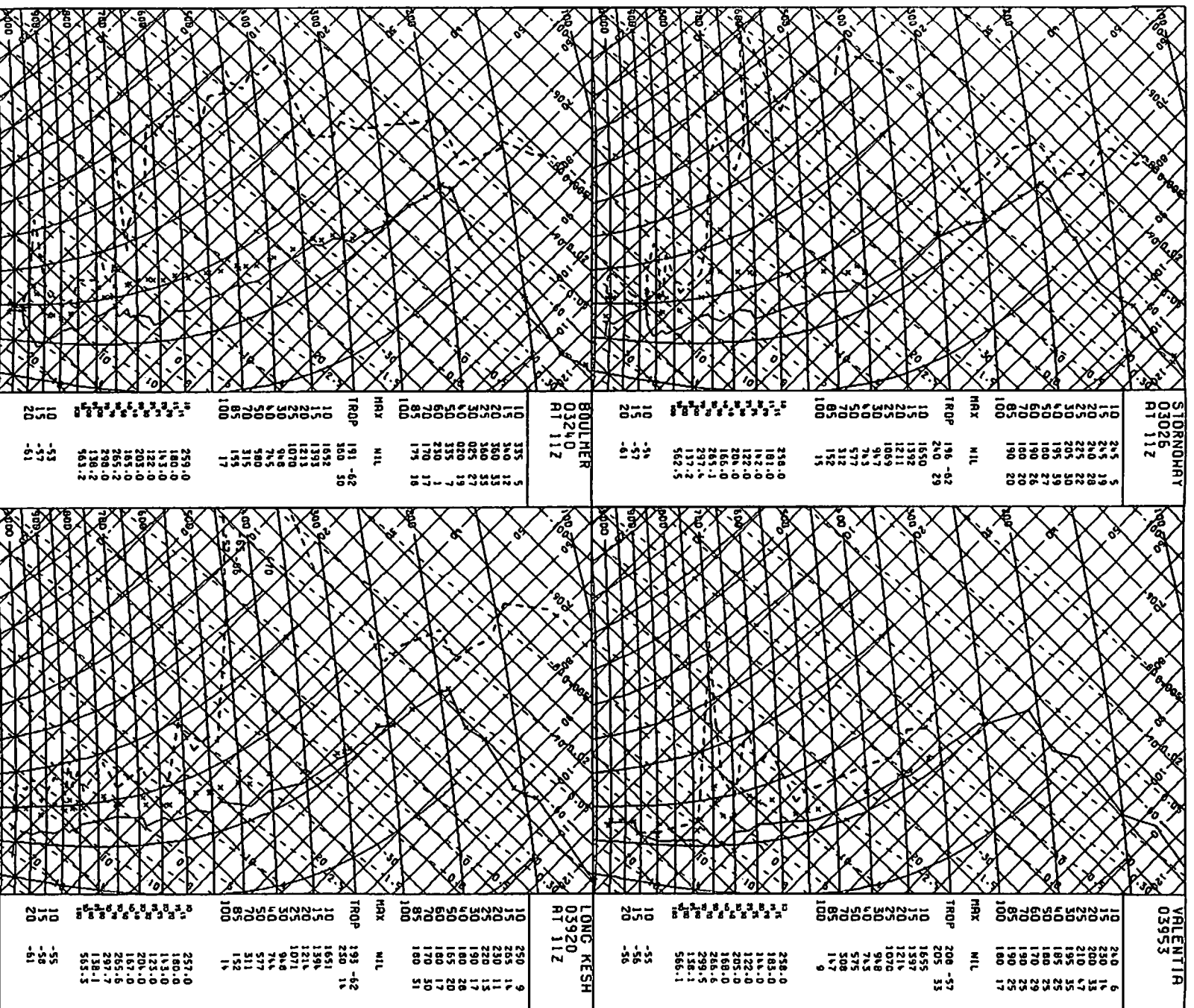
HERSTMONCEUX 03882 AT 112		
10	335	9
15	325	18
20	330	40
25	340	32
30	330	19
40	340	12
50	340	4
60	310	5
70	265	1
85	050	2
100		
MAX NIL		
TROP 219 -34		
10	1653	
15	1394	
20	1210	
25	1066	
30	945	
40	745	
50	580	
60	316	
85	156	
100	16	
11 259.0		
12 184.0		
13 144.0		
14 121.0		
15 200.0		
16 165.0		
17 264.0		
18 300.1		
19 139.8		
20 564.1		
10 -56		
15 -53		
20 -53		

ABERPORTH 03502 AT 112		
10	290	4
15	300	15
20	290	21
25	290	19
30	290	8
40	145	10
50	170	9
60	215	12
70	170	18
85	175	18
100		
MAX NIL		
TROP 186 -62		
10	1654	
15	1397	
20	1217	
25	1074	
30	951	
40	746	
50	579	
60	313	
85	153	
100	14	
11 257.0		
12 180.0		
13 143.0		
14 123.0		
15 205.0		
16 167.0		
17 265.7		
18 299.1		
19 138.8		
20 564.8		
10 -56		
15 -58		
20 -60		

FACIT 4-UP
19 AUG '97 13:43

12Z 19 AUG 1997

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FACIT 4-UP
19 AUG '97 13:41

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ME

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19 AUG '97 13:41

LERWICK
03005
AT 23Z

10	275	8
15	280	15
20	285	21
25	295	16
30	220	16
40	230	24
50	200	16
60	200	17
70	175	17
85	180	25
100		

MAX NIL
TROP 191 -65
250 21

10	1654
15	1594
20	1214
25	1071
30	949
40	746
50	579
70	314
85	154
100	16

10	250.0
15	180.0
20	143.0
25	122.0
30	203.0
40	167.0
50	265.4
60	297.3
70	137.7
85	562.7

10	-33
15	-57
20	-61

BREST
07110
AT 23Z

10	370	10
15	310	14
20	240	23
25	235	24
30	230	23
40	230	25
50	225	22
60	225	22
70	200	17
85	165	10
100	005	2

MAX NIL
TROP 201 -59
240 23

10	1656
15	1400
20	1220
25	1077
30	953
40	748
50	580
70	314
85	153
100	14

10	256.0
15	180.0
20	143.0
25	124.0
30	205.0
40	168.0
50	265.6
60	300.1
70	139.0
85	565.7

10	-57
15	-58
20	-59

LERWICK
03005
AT 23Z

10	275	8
15	280	15
20	285	21
25	295	16
30	220	16
40	230	24
50	200	16
60	200	17
70	175	17
85	180	25
100		

MAX NIL
TROP 191 -65
250 21

10	1654
15	1594
20	1214
25	1071
30	949
40	746
50	579
70	314
85	154
100	16

10	250.0
15	180.0
20	143.0
25	122.0
30	203.0
40	167.0
50	265.4
60	297.3
70	137.7
85	562.7

10	-33
15	-57
20	-61

BREST
07110
AT 23Z

10	370	10
15	310	14
20	240	23
25	235	24
30	230	23
40	230	25
50	225	22
60	225	22
70	200	17
85	165	10
100	005	2

MAX NIL
TROP 201 -59
240 23

10	1656
15	1400
20	1220
25	1077
30	953
40	748
50	580
70	314
85	153
100	14

10	256.0
15	180.0
20	143.0
25	124.0
30	205.0
40	168.0
50	265.6
60	300.1
70	139.0
85	565.7

10	-57
15	-58
20	-59

LERWICK
03005
AT 23Z

10	275	8
15	280	15
20	285	21
25	295	16
30	220	16
40	230	24
50	200	16
60	200	17
70	175	17
85	180	25
100		

MAX NIL
TROP 191 -65
250 21

10	1654
15	1594
20	1214
25	1071
30	949
40	746
50	579
70	314
85	154
100	16

10	250.0
15	180.0
20	143.0
25	122.0
30	203.0
40	167.0
50	265.4
60	297.3
70	137.7
85	562.7

10	-33
15	-57
20	-61

DE BILT
06260

10	360	12
15	553	14
20	005	12
25	105	12
30	095	8
40	035	6
50	020	4
60	325	4
70	120	10
85	105	25
100	085	14

MAX NIL
TROP 247 -52
105 10

10	1653
15	1393
20	1206
25	1060
30	941
40	742
50	577
70	314
85	153
100	17

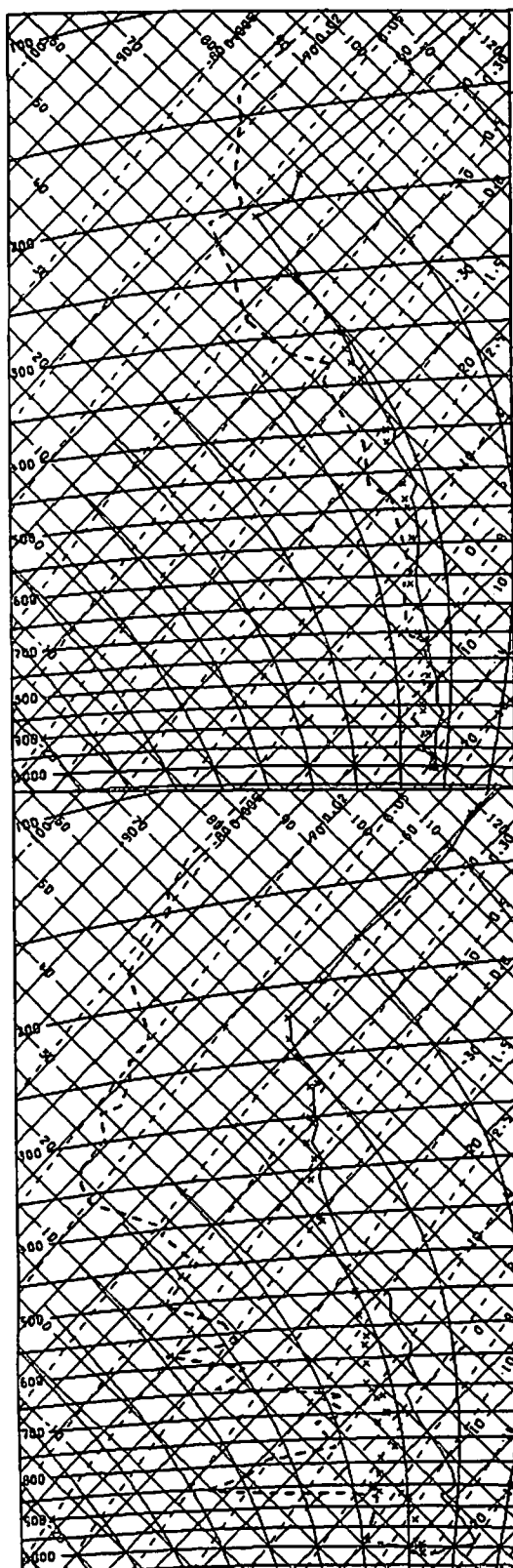
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15	187.0
20	146.0
25	119.0
30	199.0
40	165.0
50	263.1
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85	560.5

10	-55
15	-52
20	-50

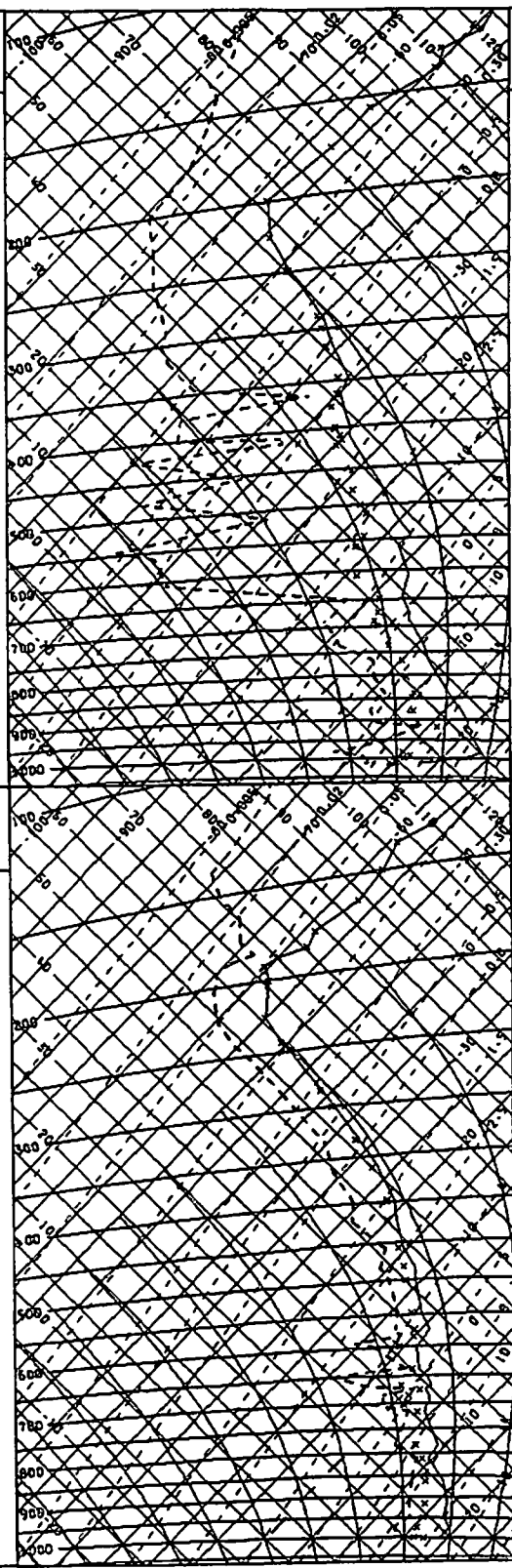
FACIT 4-UP
20 AUG '97 06:37

00Z 20 AUG 1997

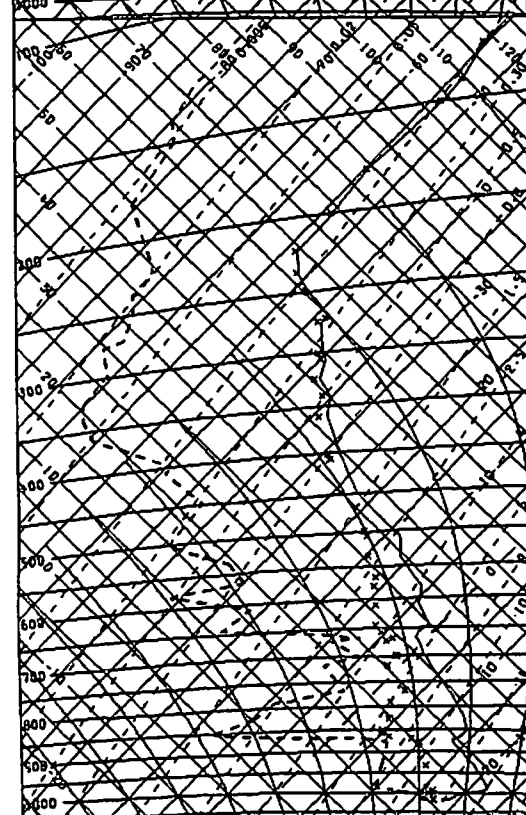
MET_OFFICE_ARTIFAX_6 PAGE.003



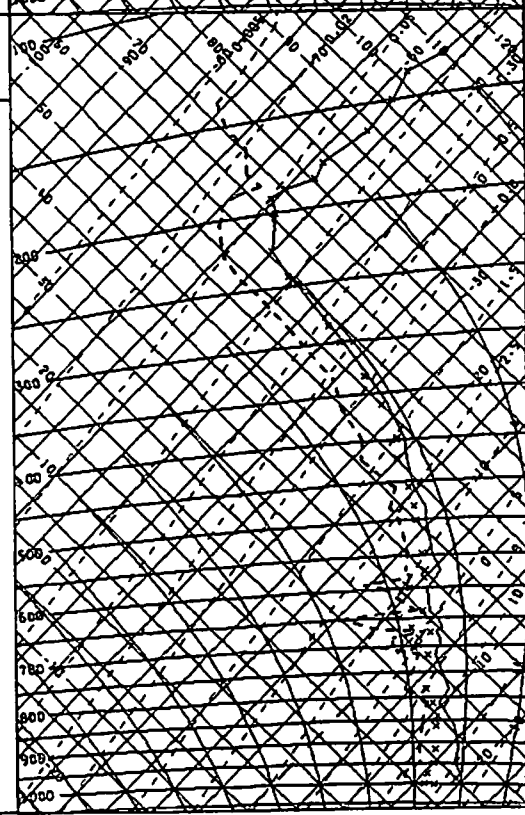
CAMBORNE 03808 AT 23Z		
10	350	9
15	305	14
20	220	13
25	200	13
30	190	17
40	210	19
50	200	20
60	205	19
70	210	27
85	195	21
100		
MAX	NIL	
TROP	207	-59
	210	13
10	1657	
15	1401	
20	1219	
25	1076	
30	953	
40	746	
50	579	
60	313	
70	153	
85	14	
100		
10	256.0	
15	182.0	
20	143.0	
25	123.0	
30	205.0	
40	169.0	
50	265.7	
60	299.2	
70	138.4	
85	564.9	
10	-56	
15	-57	
20	-57	



HERSTMONCEUX 03882 AT 23Z		
10	355	8
15	330	20
20	335	47
25	330	45
30	340	40
40	320	32
50	310	12
60	285	7
70	225	1
85	140	2
100		
MAX	NIL	
TROP	200	-58
	335	47
10	1656	
15	1398	
20	1216	
25	1073	
30	950	
40	746	
50	580	
60	316	
70	156	
85	16	
100		
10	256.0	
15	182.0	
20	143.0	
25	123.0	
30	204.0	
40	166.0	
50	264.0	
60	300.2	
70	139.8	
85	564.2	
10	-55	
15	-56	
20	-58	



HEMSBY 03496 AT 23Z		
10	345	11
15	355	15
20	345	40
25	345	39
30	355	39
40	080	11
50	345	12
60	085	4
70	030	3
85	085	6
100		
MAX	10261	
	345	60
TROP	221	-54
	355	54
10	1653	
15	1394	
20	1210	
25	1066	
30	943	
40	743	
50	578	
60	315	
70	155	
85	17	
100		
10	259.0	
15	184.0	
20	144.0	
25	123.0	
30	200.0	
40	165.0	
50	262.8	
60	298.7	
70	138.7	
85	561.5	
10	-56	
15	-54	
20	-54	

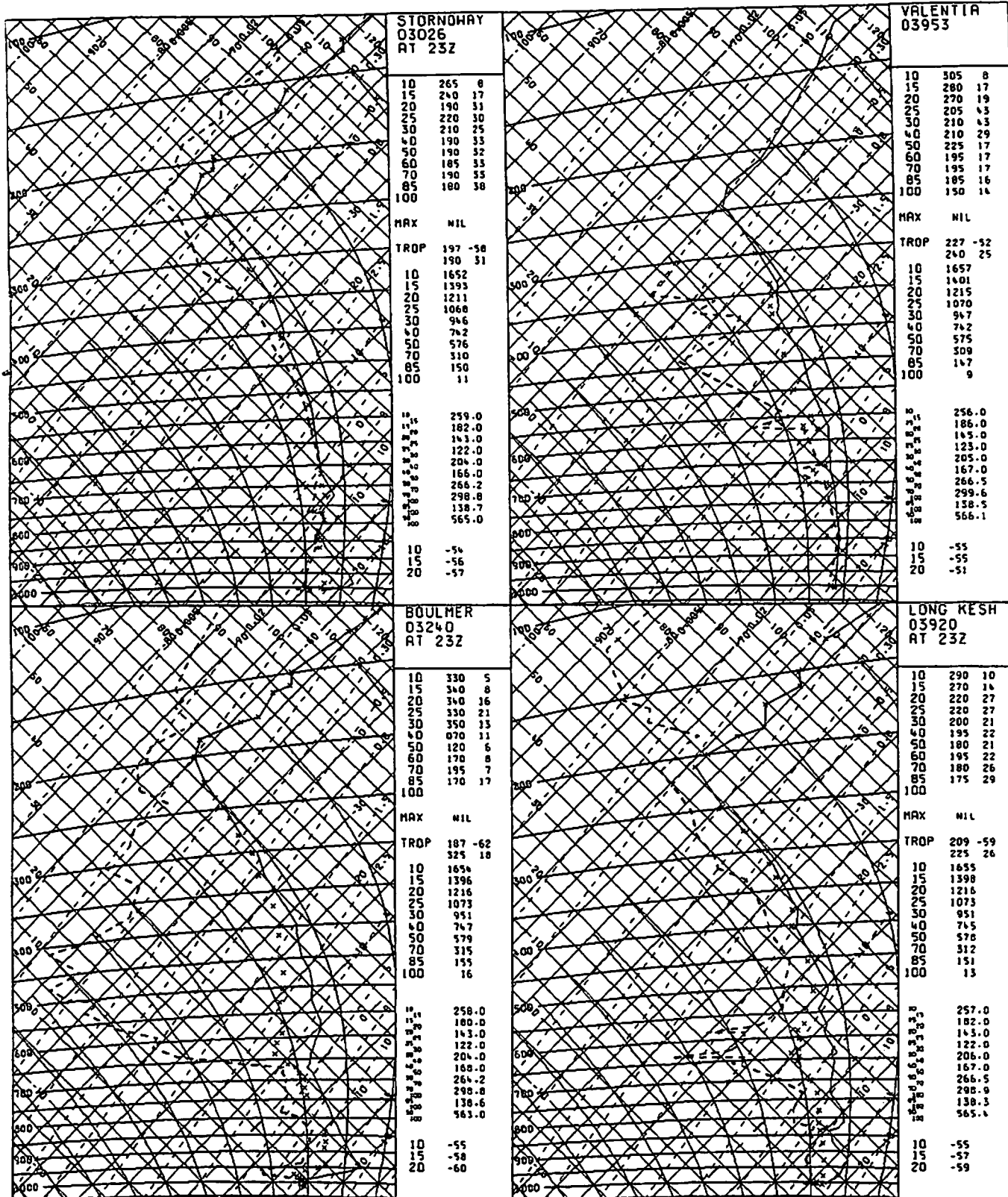


ABERPORTH 03502 AT 23Z		
10	320	6
15	305	15
20	275	14
25	265	11
30	265	10
40	245	19
50	205	11
60	185	23
70	185	21
85	170	20
100		
MAX	NIL	
TROP	192	-61
	280	16
10	1655	
15	1398	
20	1216	
25	1075	
30	952	
40	747	
50	579	
60	313	
70	152	
85	14	
100		
10	257.0	
15	180.0	
20	143.0	
25	123.0	
30	205.0	
40	168.0	
50	266.4	
60	298.8	
70	139.4	
85	565.2	
10	-56	
15	-58	
20	-59	

FACIT 4-UP
20 AUG '97 06:35

00Z 20 AUG 1997

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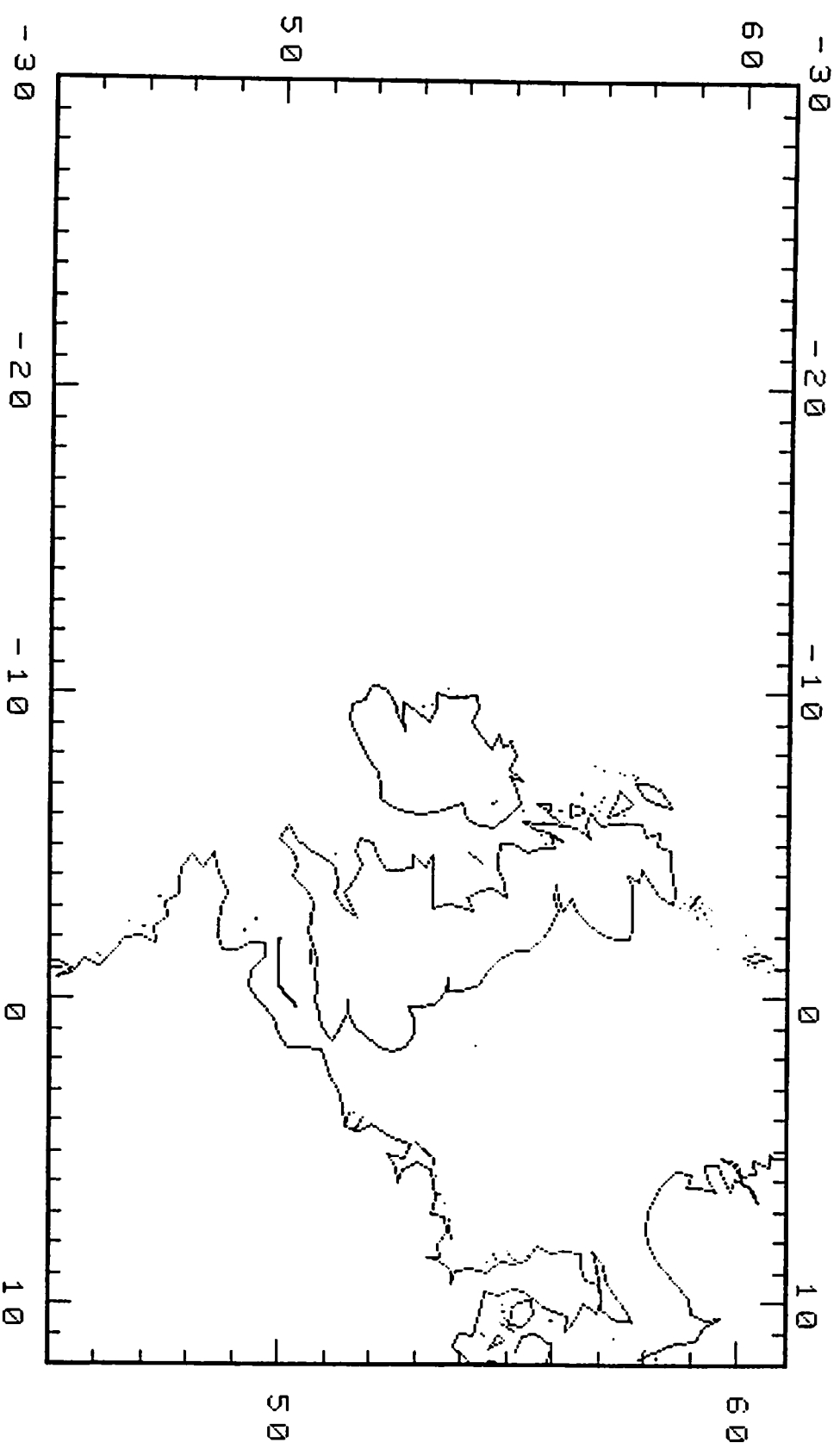
FACIT 4-UP
20 AUG '97 06:33

00Z 20 AUG 1997

MET_OFFICE_ARTIFAX_6 PAGE.001

A572 · 19-AUG-97 14:13:39 037 50.35 0.24 FC P

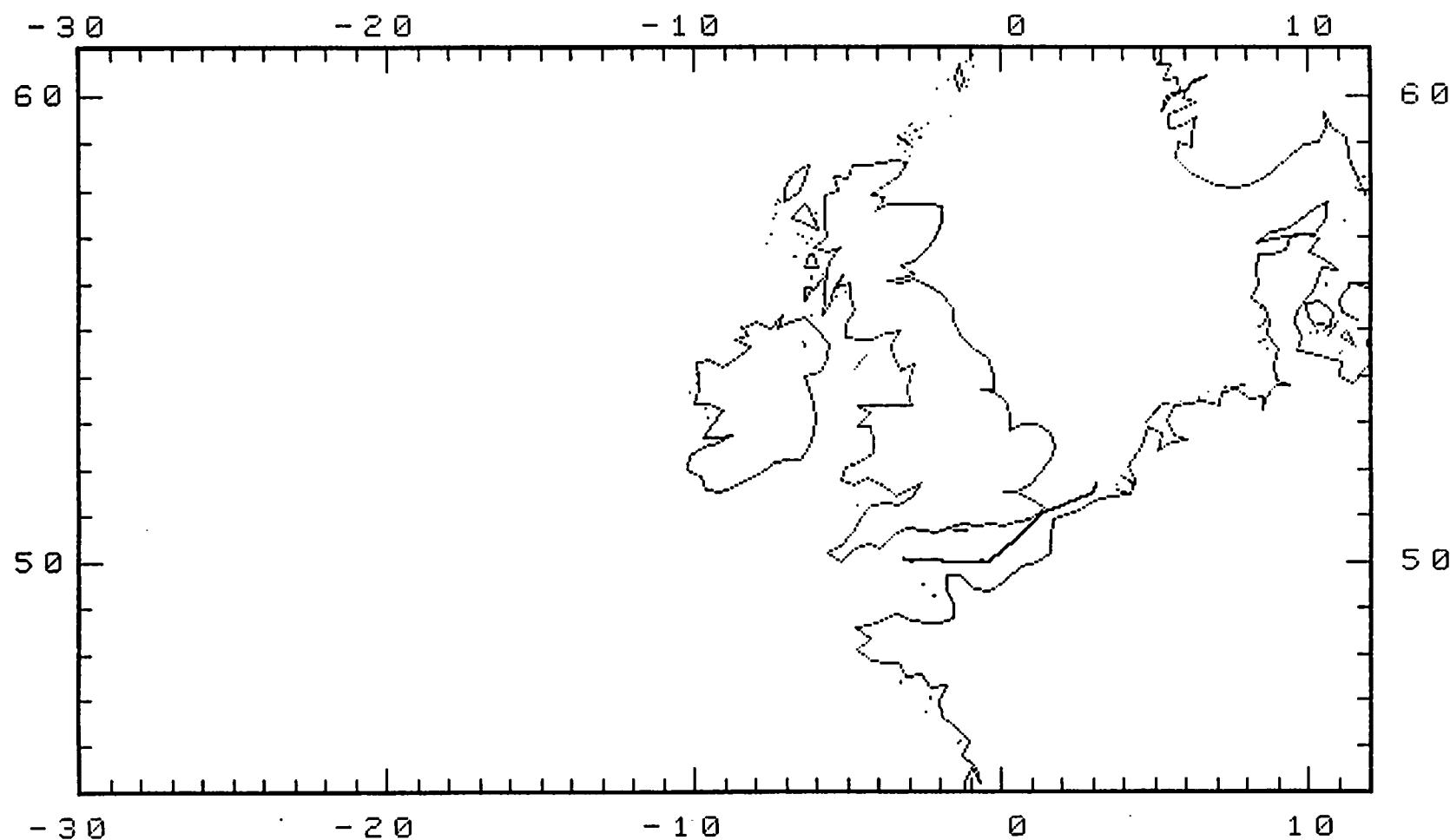
HDG ^{d_{eg}} T	SPR _{mb}	PHGT _{kt}	TAS _{knots}	TAT _{°C}	DEW _{°C}	WIND _{^{d_{eg}} _{m/s}}	
50.	991.	0.6	187.	24.4	13.5	099/5	



A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 14:58:39 062 Ω 51.68 3.07 FC P

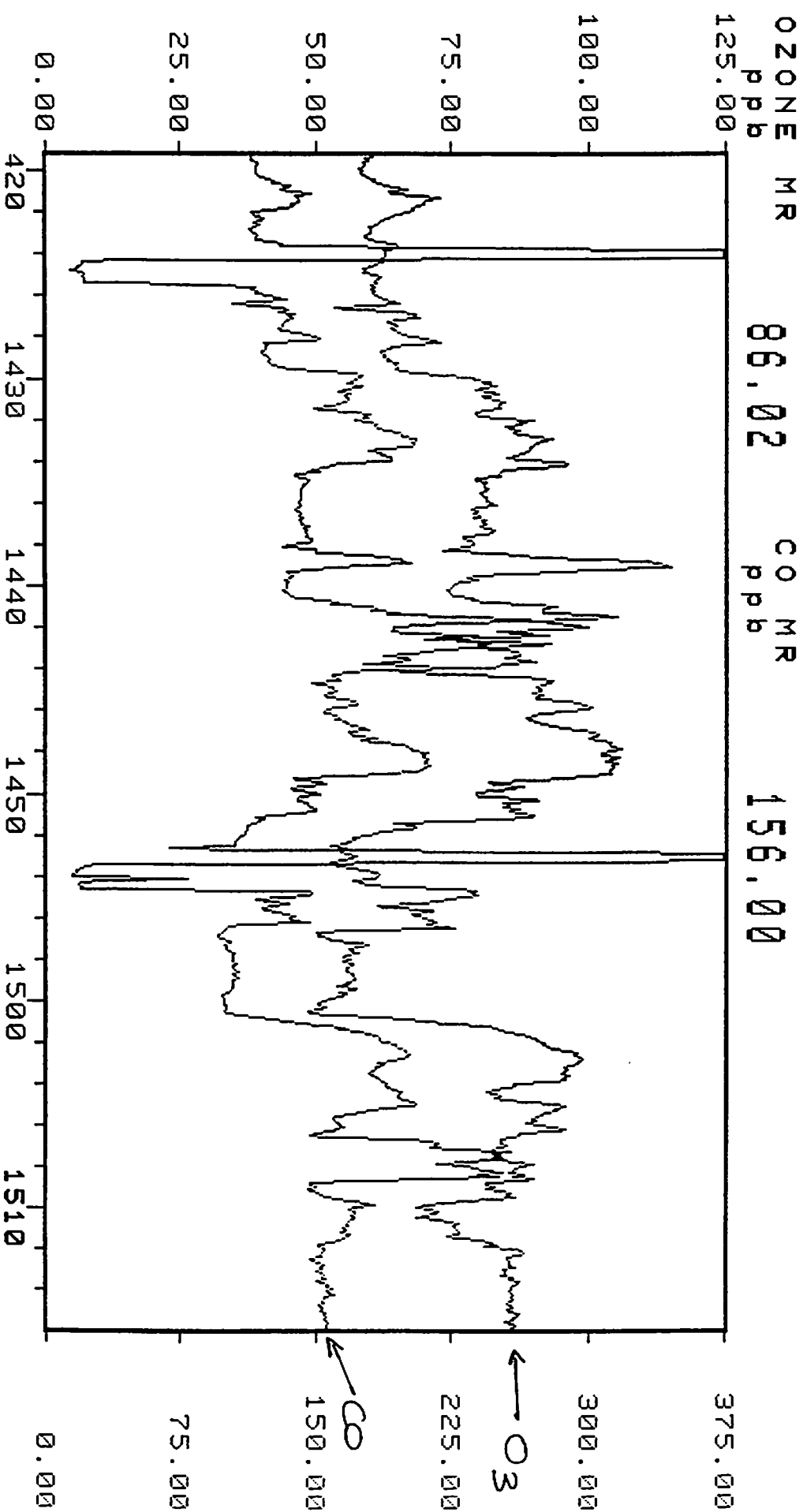
HDG	SPR	PHGT	TAS	TAT	DEW	WIND	
deg T	mb	kft	knots	C	C	deg m/s	
24.	844.	5.0	206.	14.5	-5.2	065/ 4	



A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:15:57 072 52.48 3.64 FC P

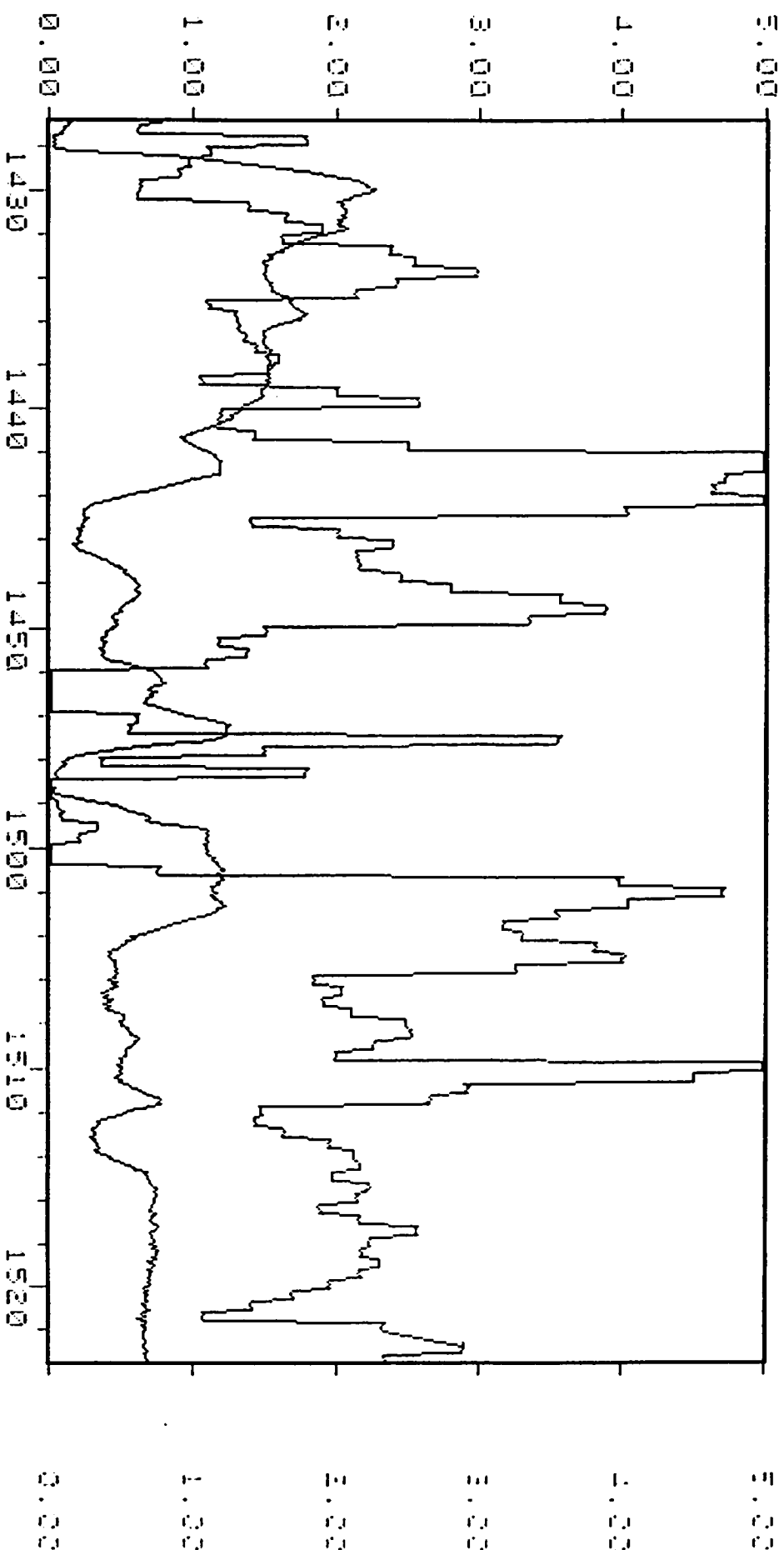
HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s	WIND dir
33.	973.	1.1	189.	22.3	7.4	079/	E. Channel



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
9.	880.	3.8	196.	14.9	1.1	113 / 8

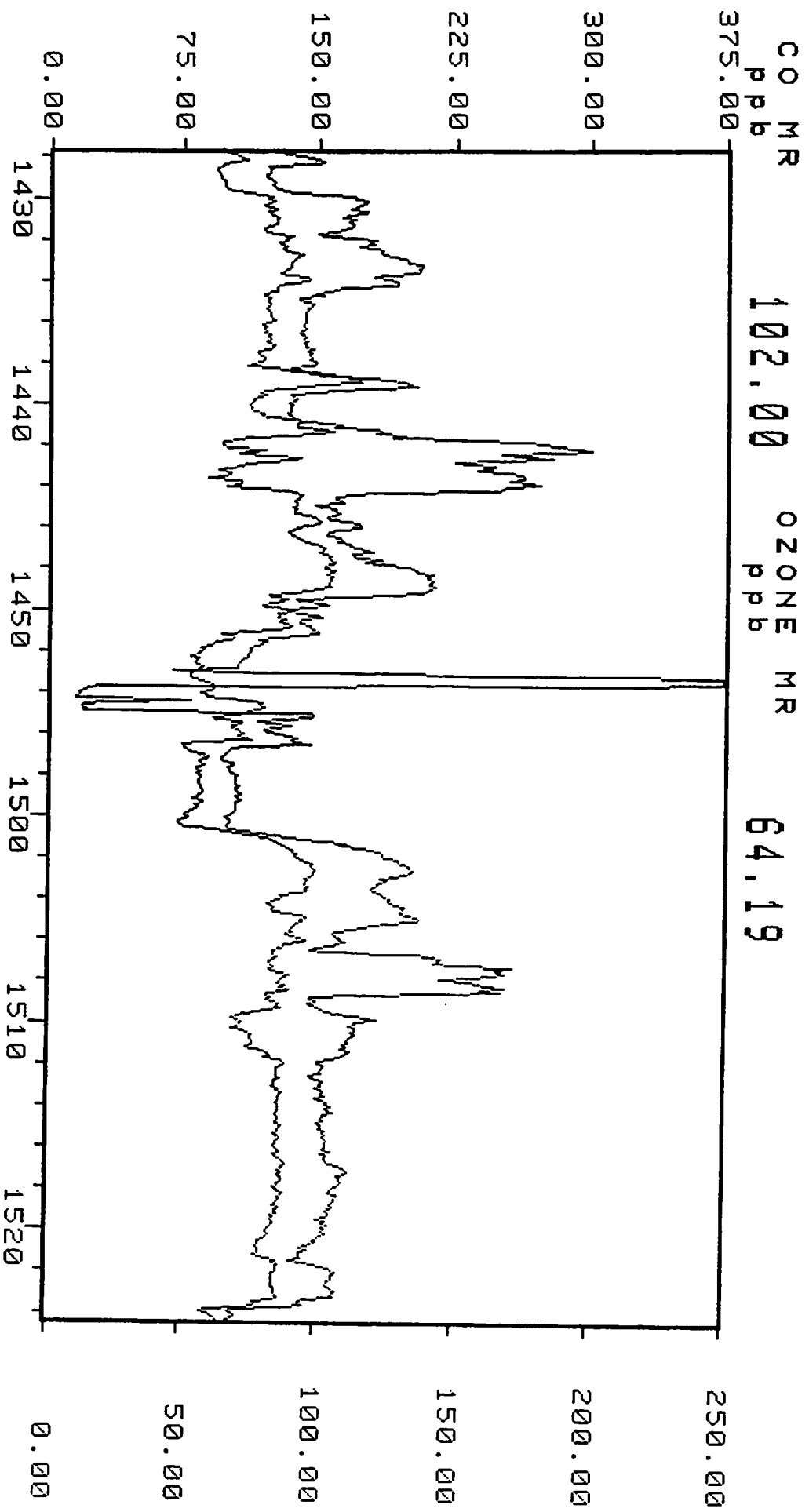
H202 NR 0000 2.67 333-111 2.33



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:24:18 076 52.87 3.90 FC P

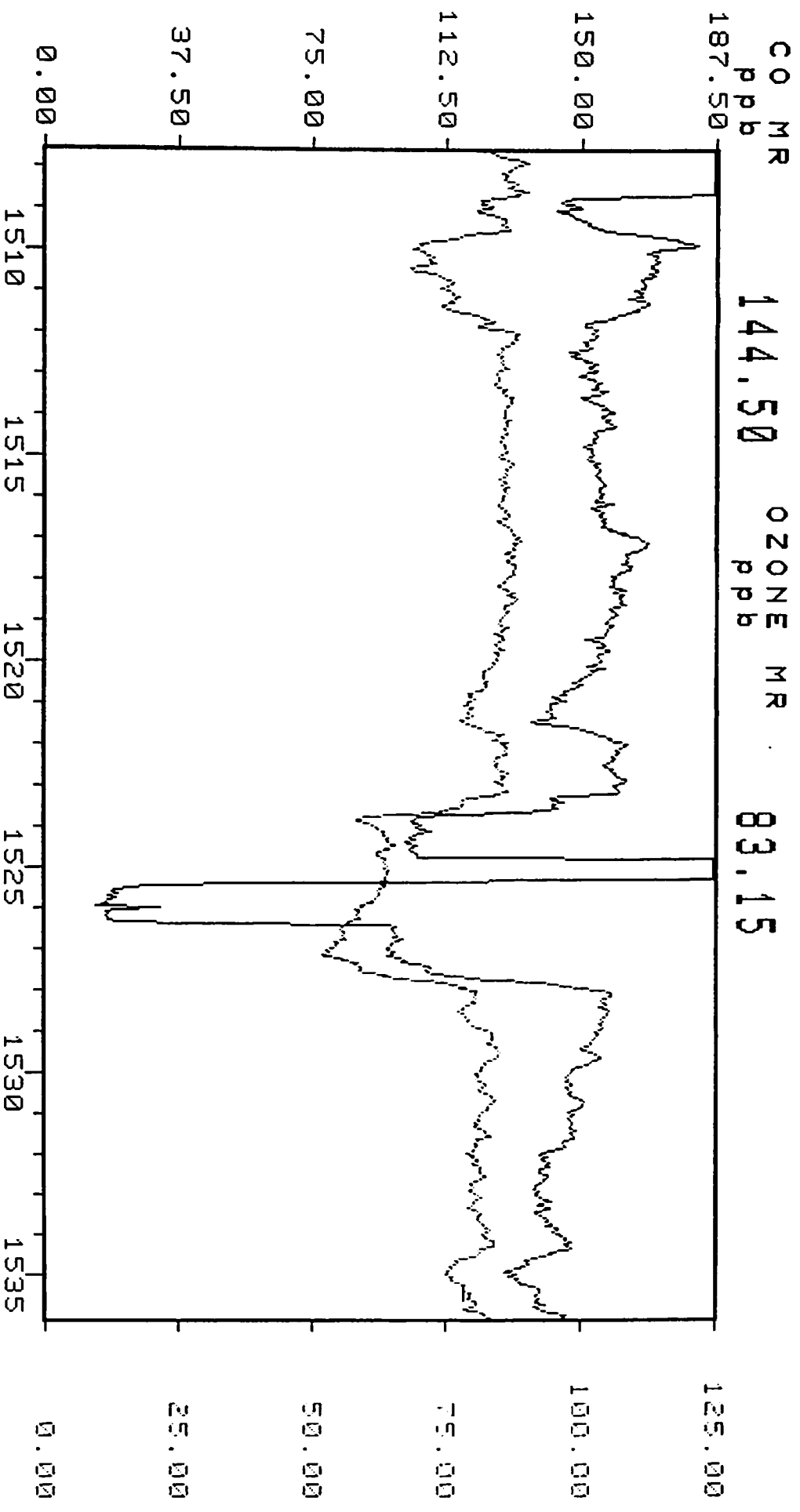
HDG deg 10.	SPR mb 845.	PHGT k ft 4.9	TAS knots 205.	TAT C 13.4	DEW C c-17.7	WIND deg m/s 111/8
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A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:35:57 082 53.38 4.44 AS P

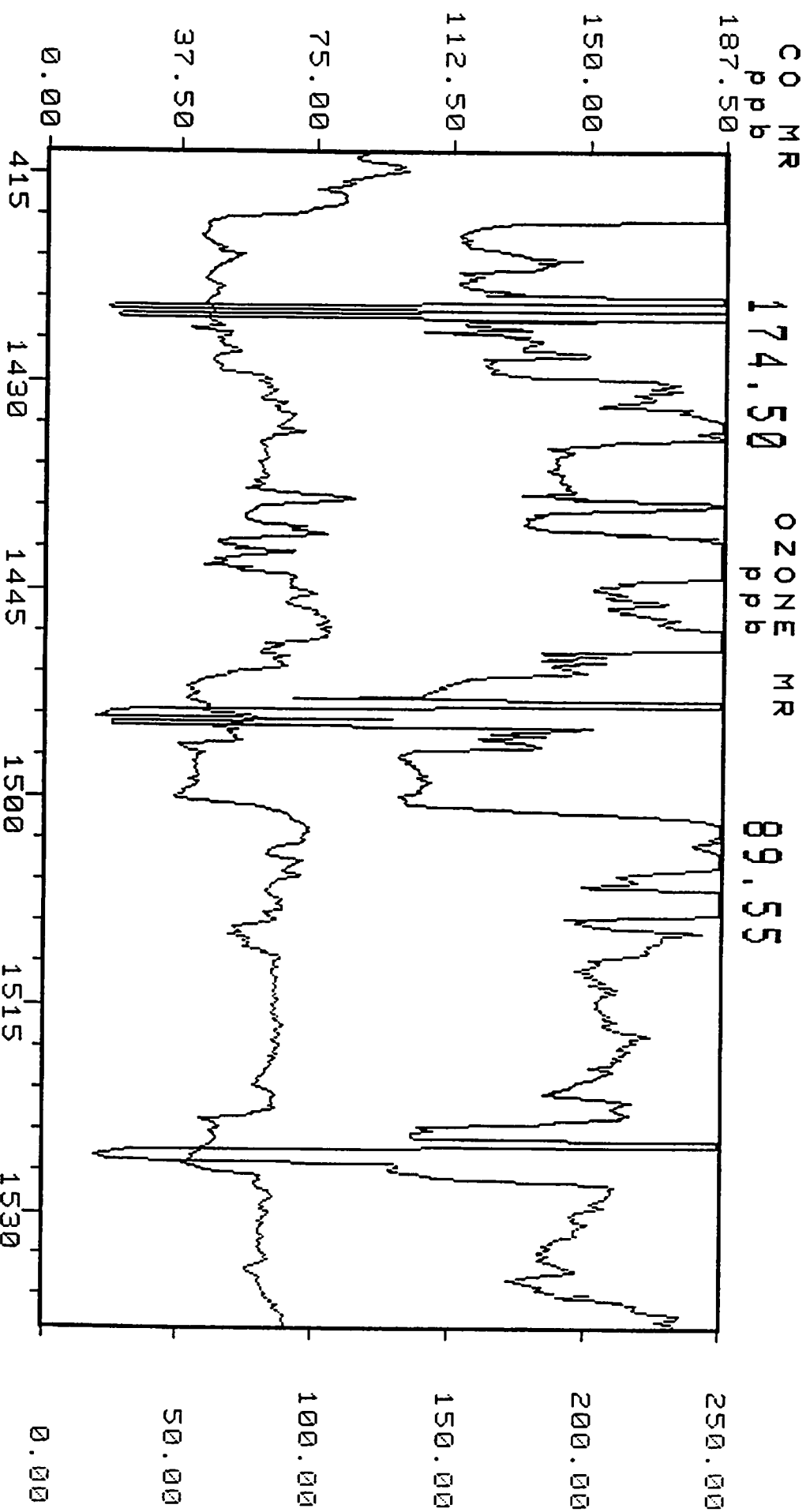
HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
41.	997.	0.4	190.	23.6	7.0	072/7



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:38:33 084 53.48 4.56 FC P

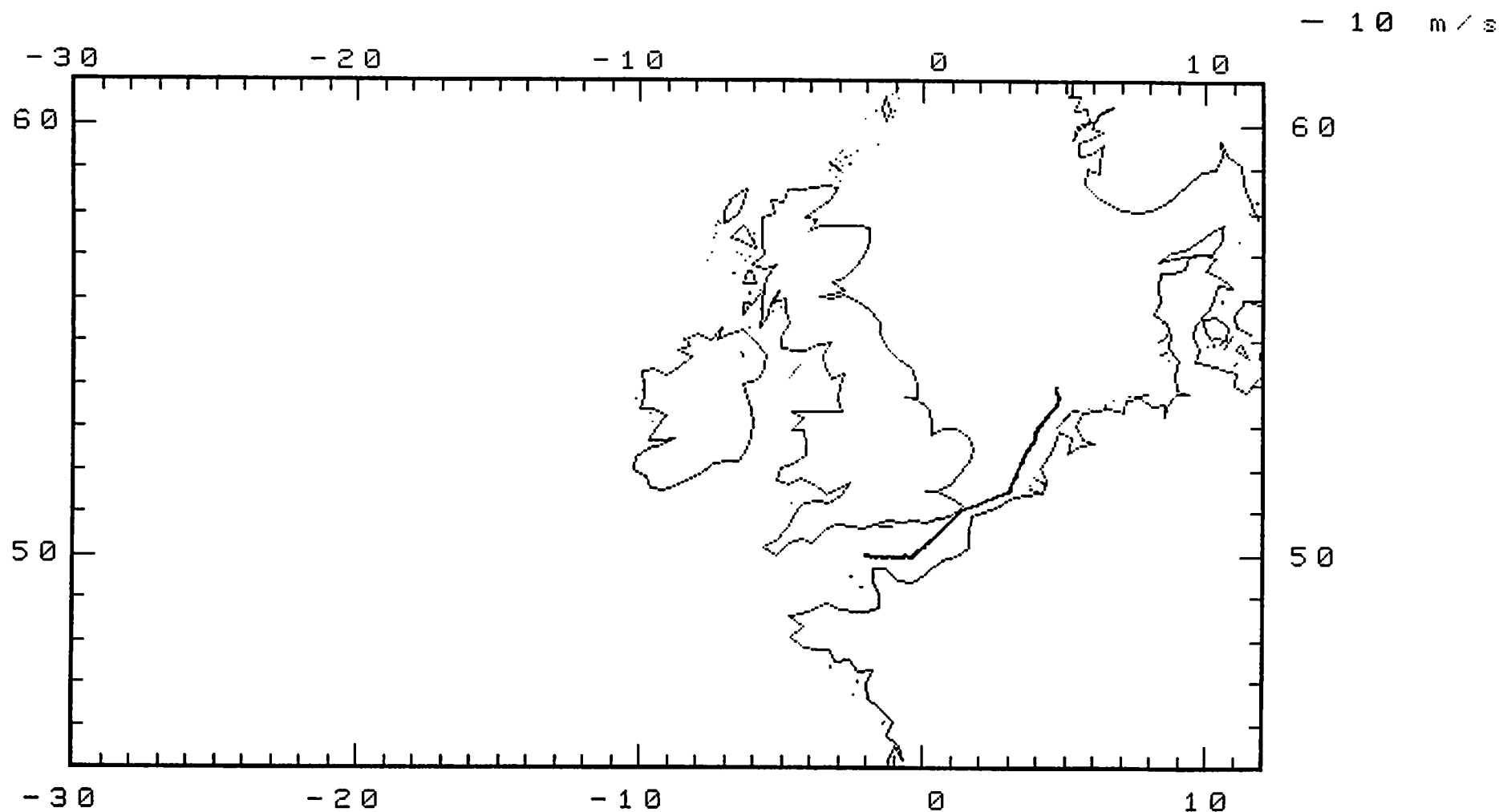
HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
40.	996.	0.5	188.	23.5	8.2	084/7



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:48:03 089 Ω 53.94 4.61 FC P

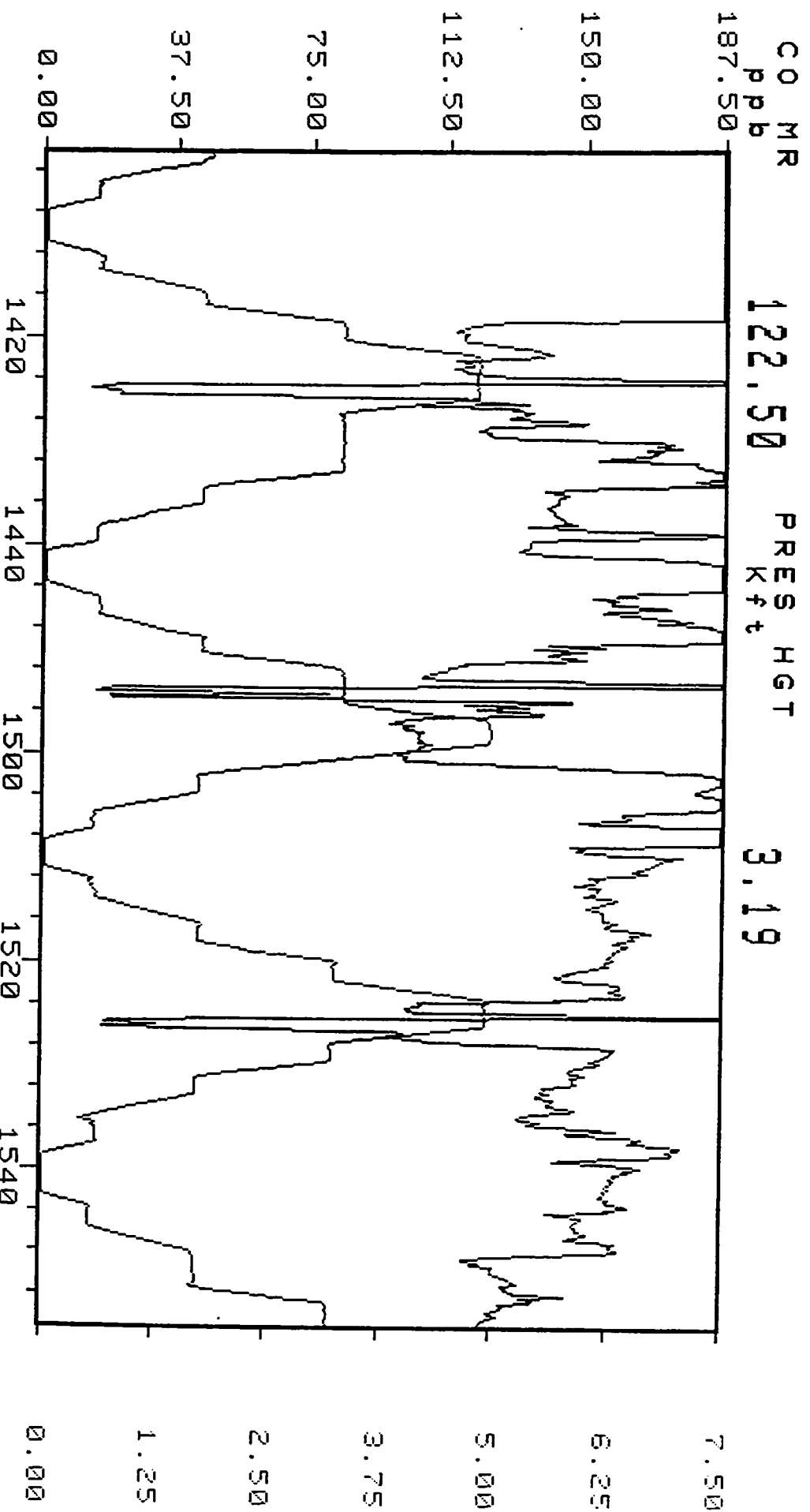
HDG	SPR	PHGT	TAS	TAT	DEW	WIND	
deg T	mb	kft	knots	C	C	deg m/s	
359.	968.	1.3	193.	21.3	3.9	093/ 5	



A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 15:55:06 093 Ω 54.11 4.24 FC P

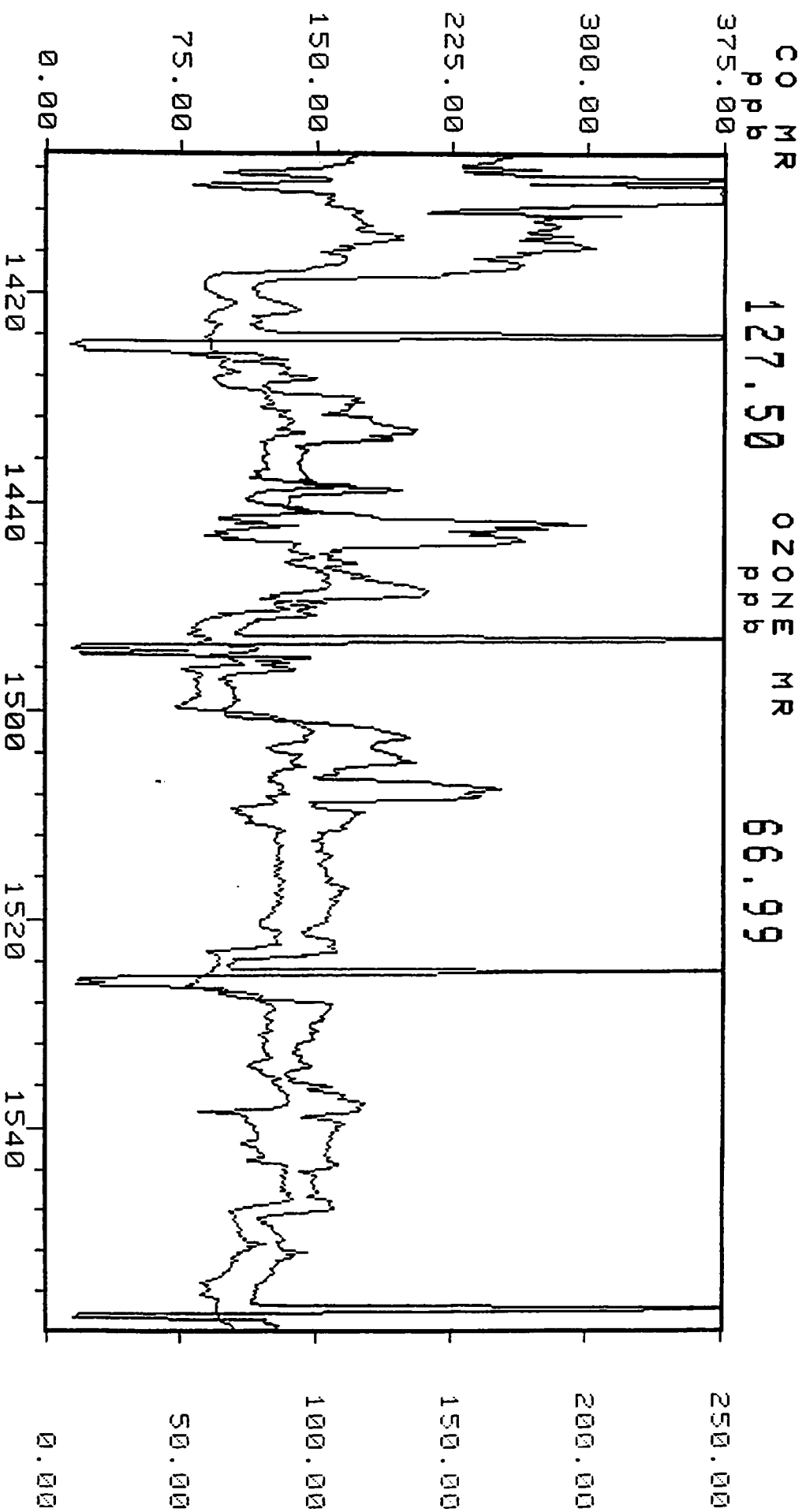
HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
272.	902.	3.2	184.	16.3	3.8	071/ 5



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM				
						VIDEO	HELP

A572 19-AUG-97 15:59:57 093 54.10 3.77 FC P

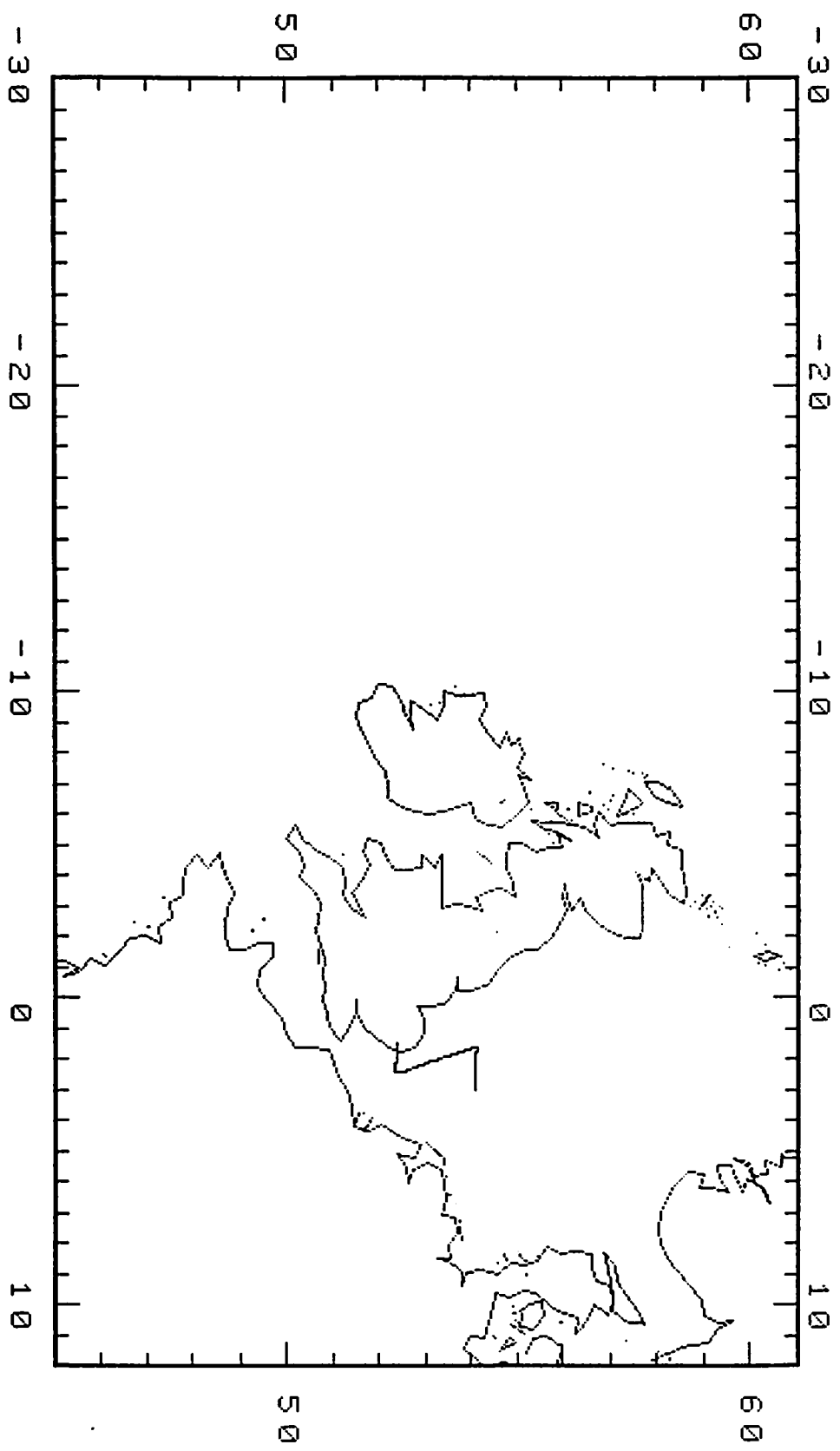
HDG deg T	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s
260.	902.	3.2	188.	16.7	4.4	065/7



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 17:09:18 126 52.42 1.41 FC P

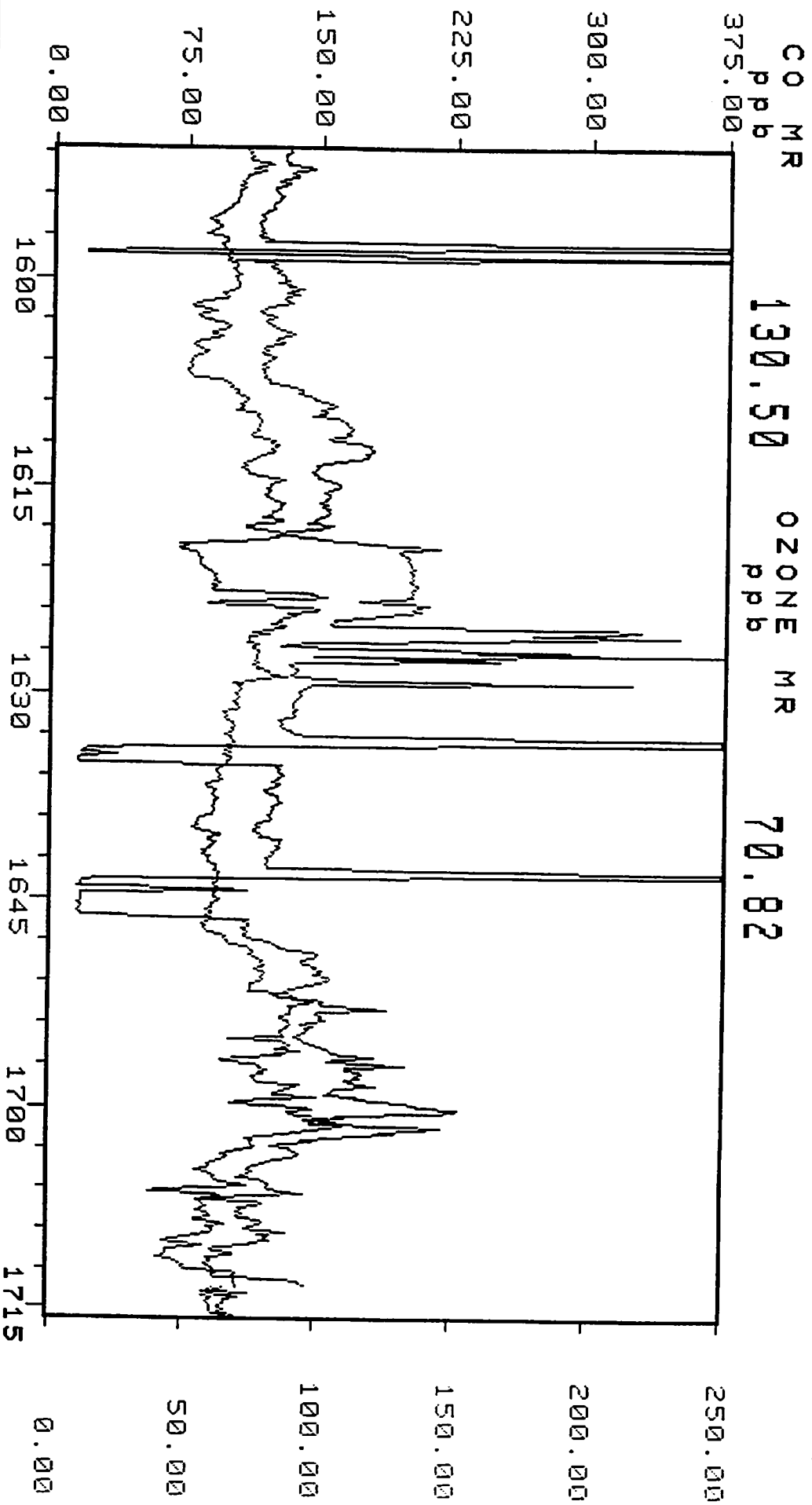
HDG _{deg T} 279.	SPR _{mb} 763.	PHGT _{kt} 7.6	TAS _{knots} 206.	TAT _C 8.0	DEW _C 0.1	WIND _{deg m/s} 006 / 3	
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A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 17:15:42 126 Ω 52.46 0.81 FC P

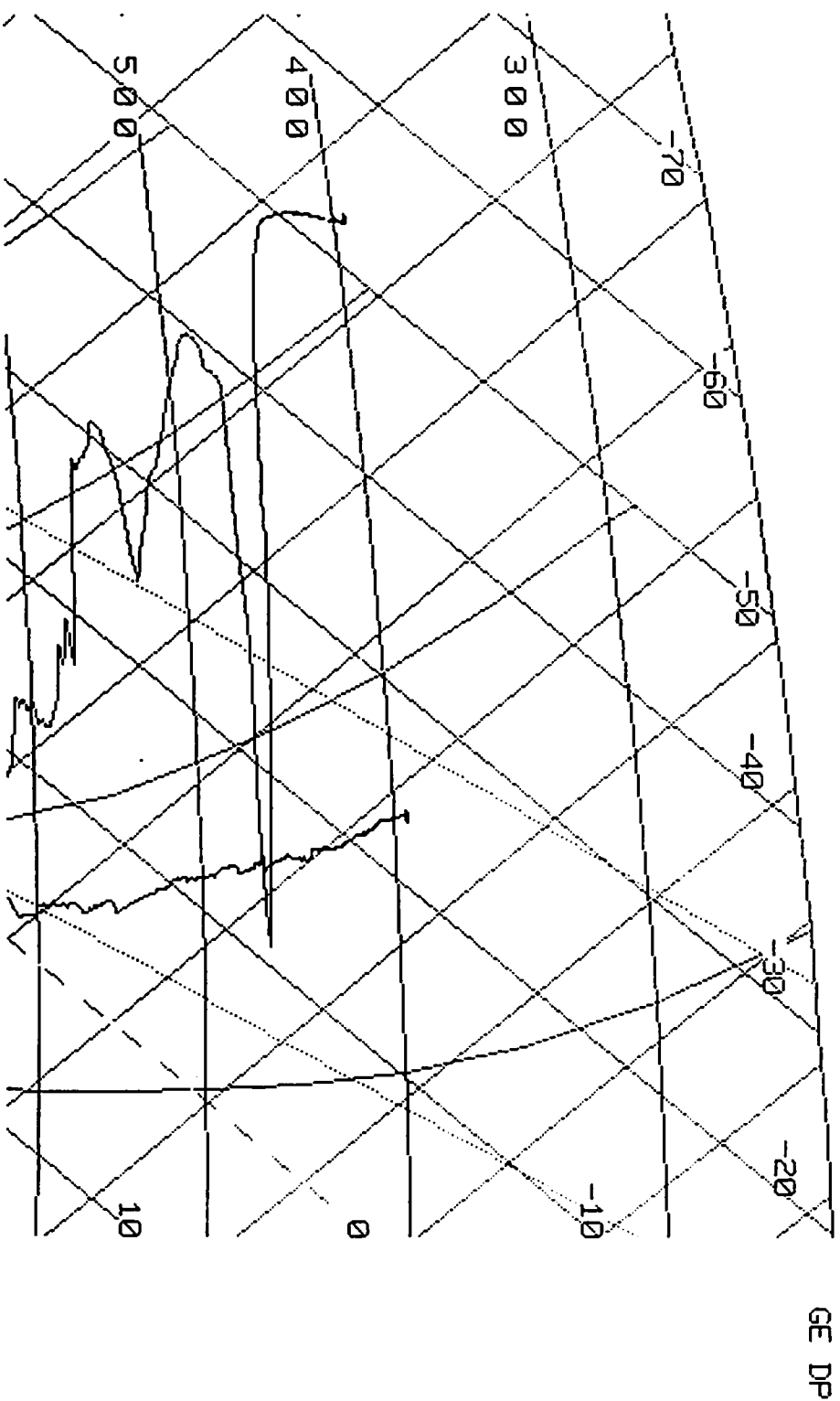
HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
278.	597.	13.9	227.	-5.1	-9.3	002/4



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 18:02:03 130 52.37 -3.74 FC P

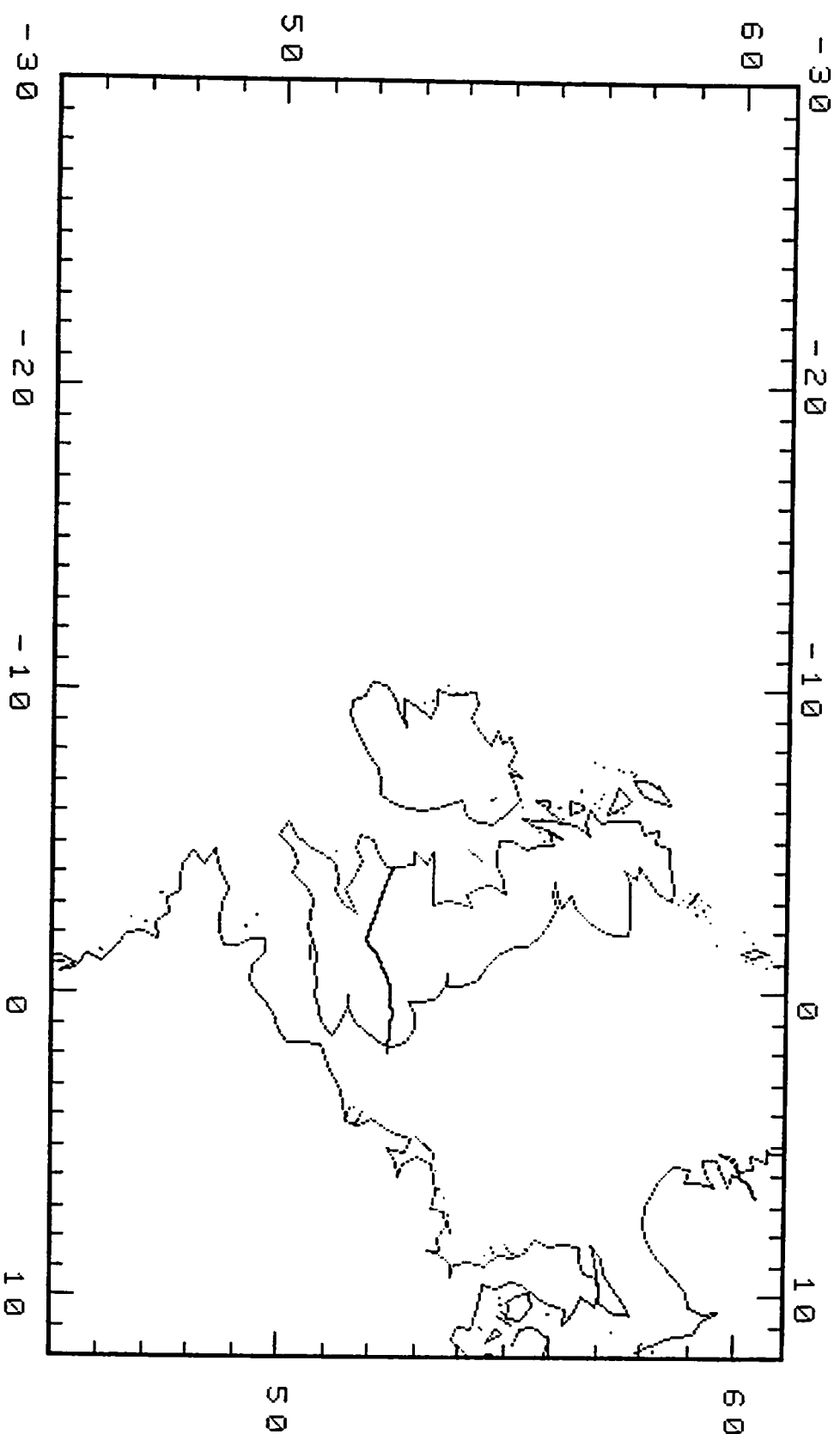
HDG deg T	SPR m b	PHGT k f t	TAS k n o t s	TAT C	DEW C	WIND deg m / s
289.	394.	23.9	292.	-23.5	-52.5	193/ 5



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 18:05:30 130 52.47 -4.17 FC

HDG ^{deg T} 292.	SPR _{mb} 489.	PHGT _{k ft} 18.8	TAS _{knots} 333.	TAT _C -11.5	DEW _C c-13.7	WIND ^{deg m/s} 176/ 4
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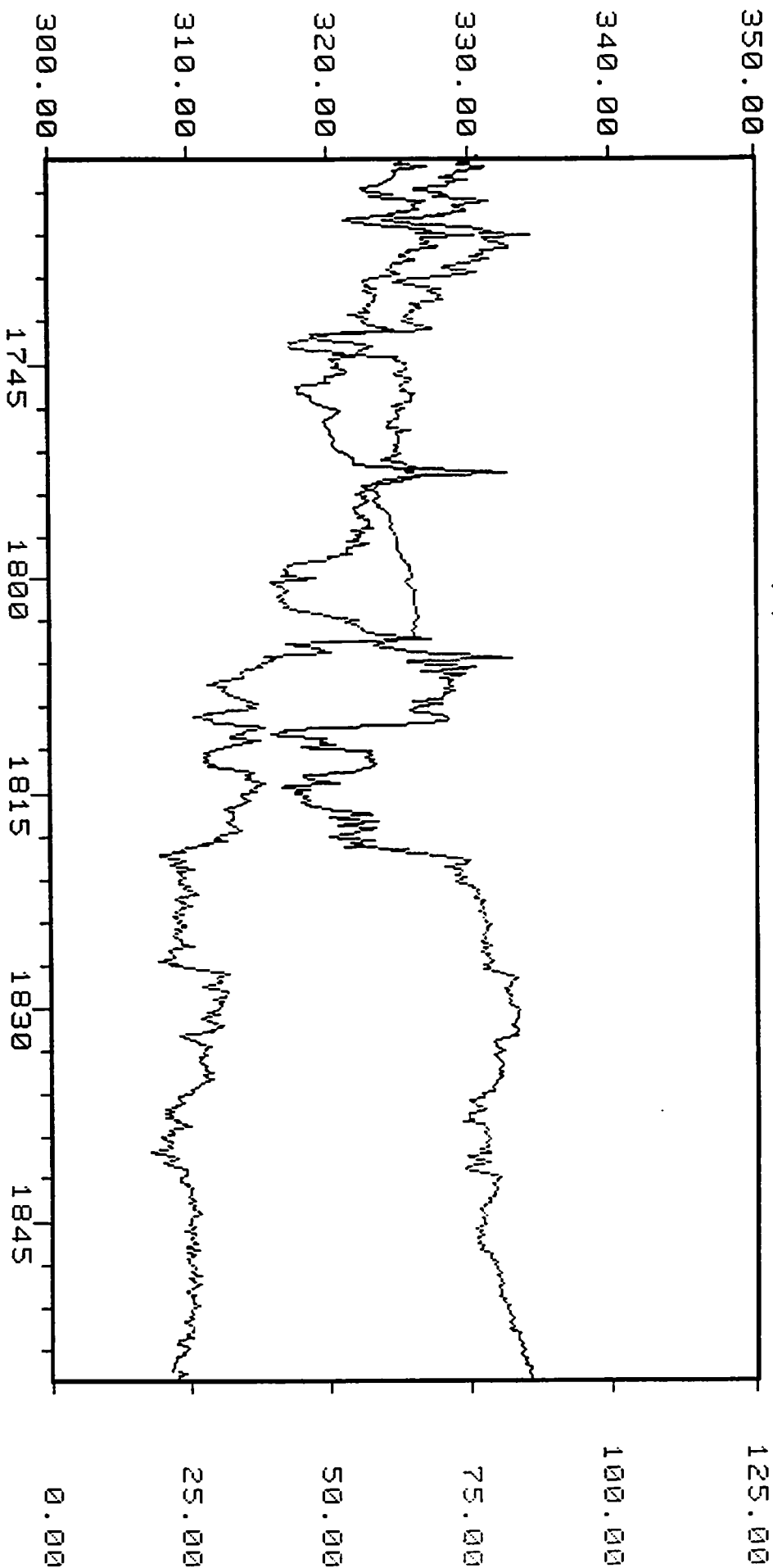


A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 18:55:54 136 Ω 50.94 -6.12 FC P

HDG deg T	SPR m b	PHGT k f t	TAS k n o t s	TAT C	DEW C	WIND deg m / s
263.	979.	0.9	189.	18.6	17.9	170 / 8

POTE K 333.59 OZONE ppb MR 22.73

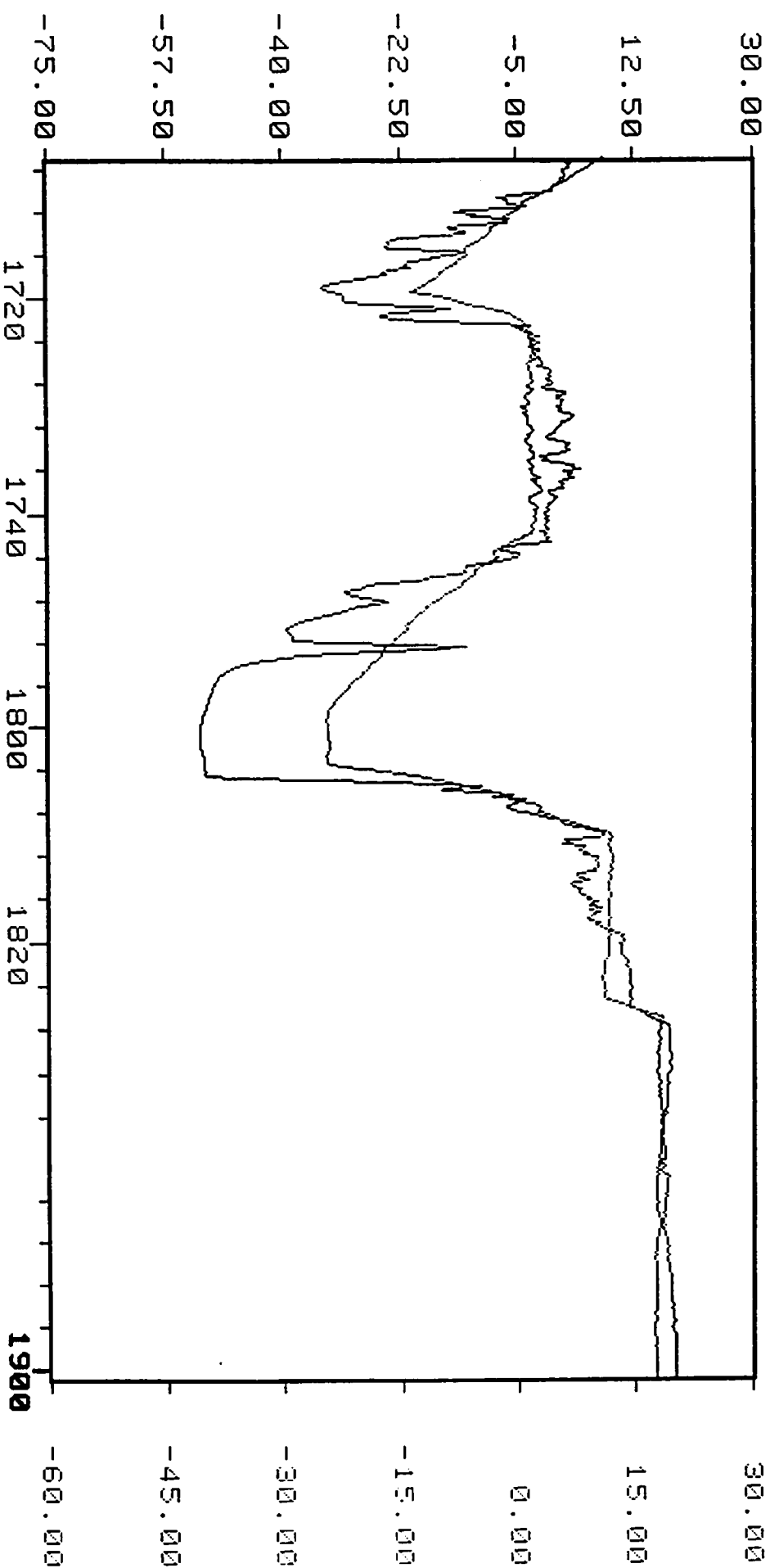


A	B	C	D	E	F	G	H
SELECT	-PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 19:00:42 136 Ω 50.94 -6.51 FC P

HDG deg T	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s
263.	980.	0.9	186.	18.8	18.3	176/10

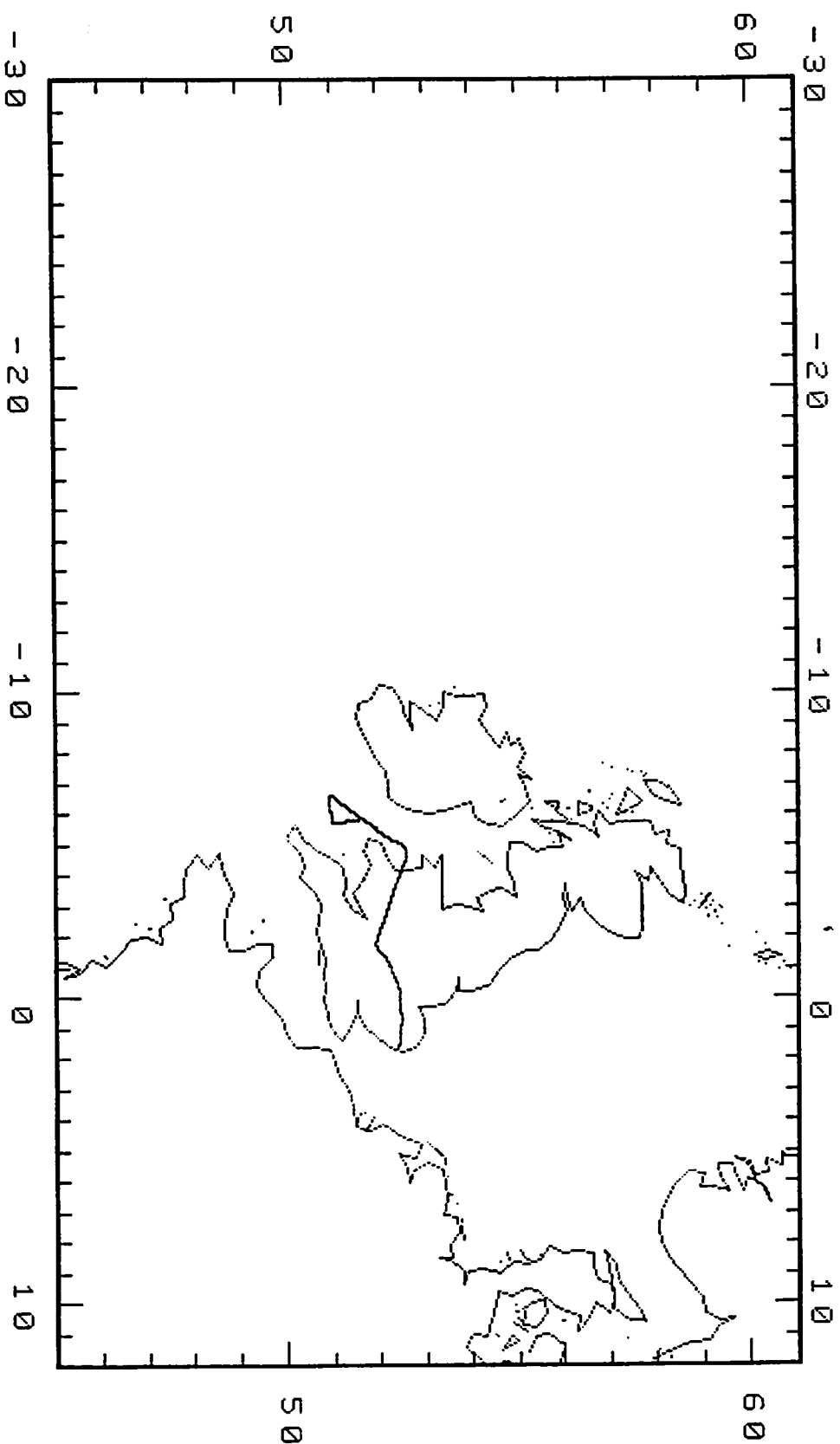
GE DEWP 18.32 TATND 17.54



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 19:11:54 138 51.65 -5.75 FC P

HDG ^{d_{eg}} T	SPR _{mb}	PHGT _{k_{ft}}	TAS _{k_{nots}}	TAT _C	DEW _C	WIND ^{d_{eg}} _{m/s}	
39.	848.	4.9	294.	12.6	10.9	193/10	

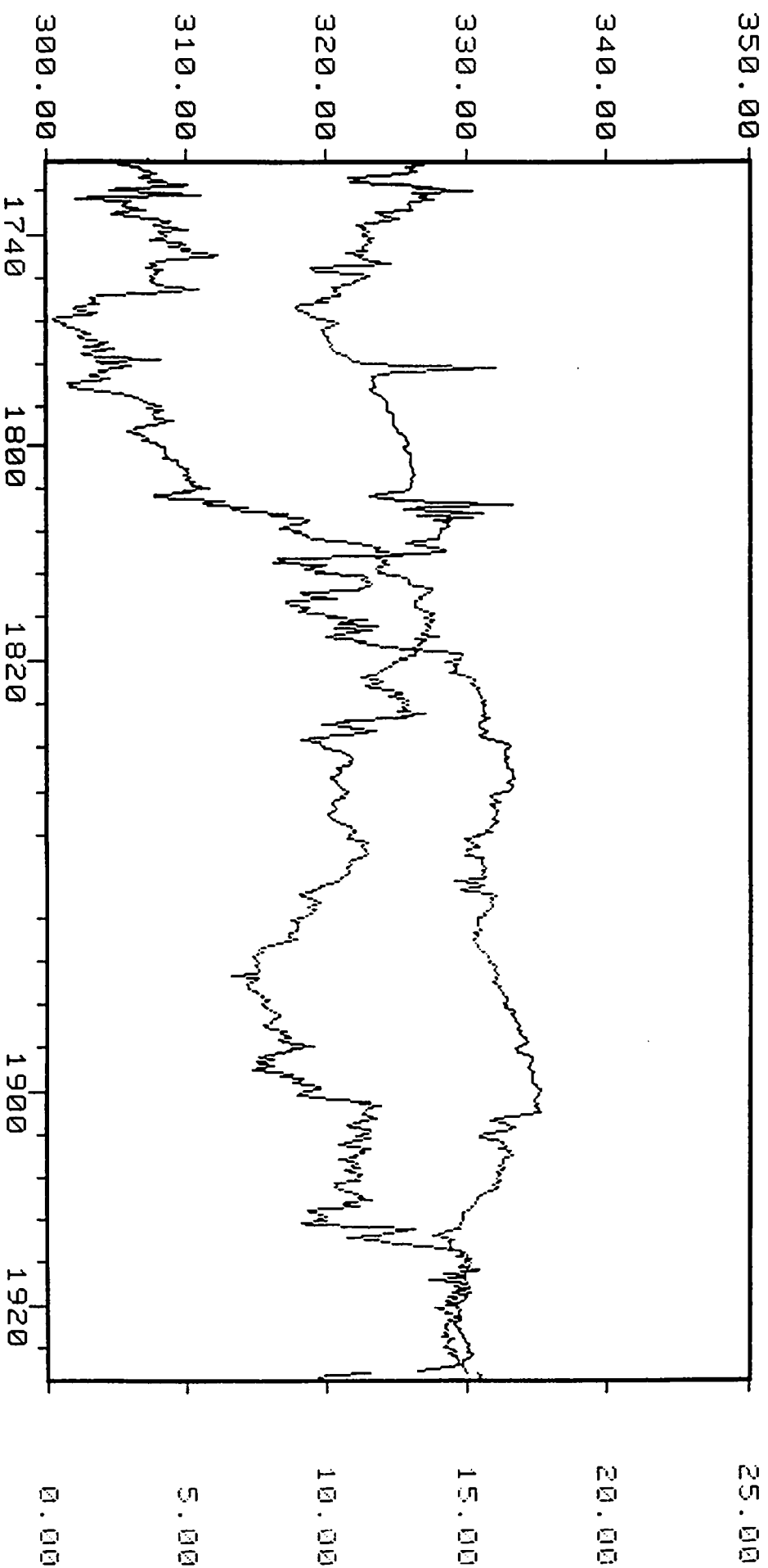


A	B	C	D	E	F	G	H
SELECT	DEVICE	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 19:26:48 138 52.44 -4.89 FC P

HDG deg T	SPR mb	PHGT k ft	TAS knots	TAT C	DEW C	WIND deg m/s
38.	845.	4.9	197.	13.0	4.5	172/15

POTE K 319.30 INU MS 15.45

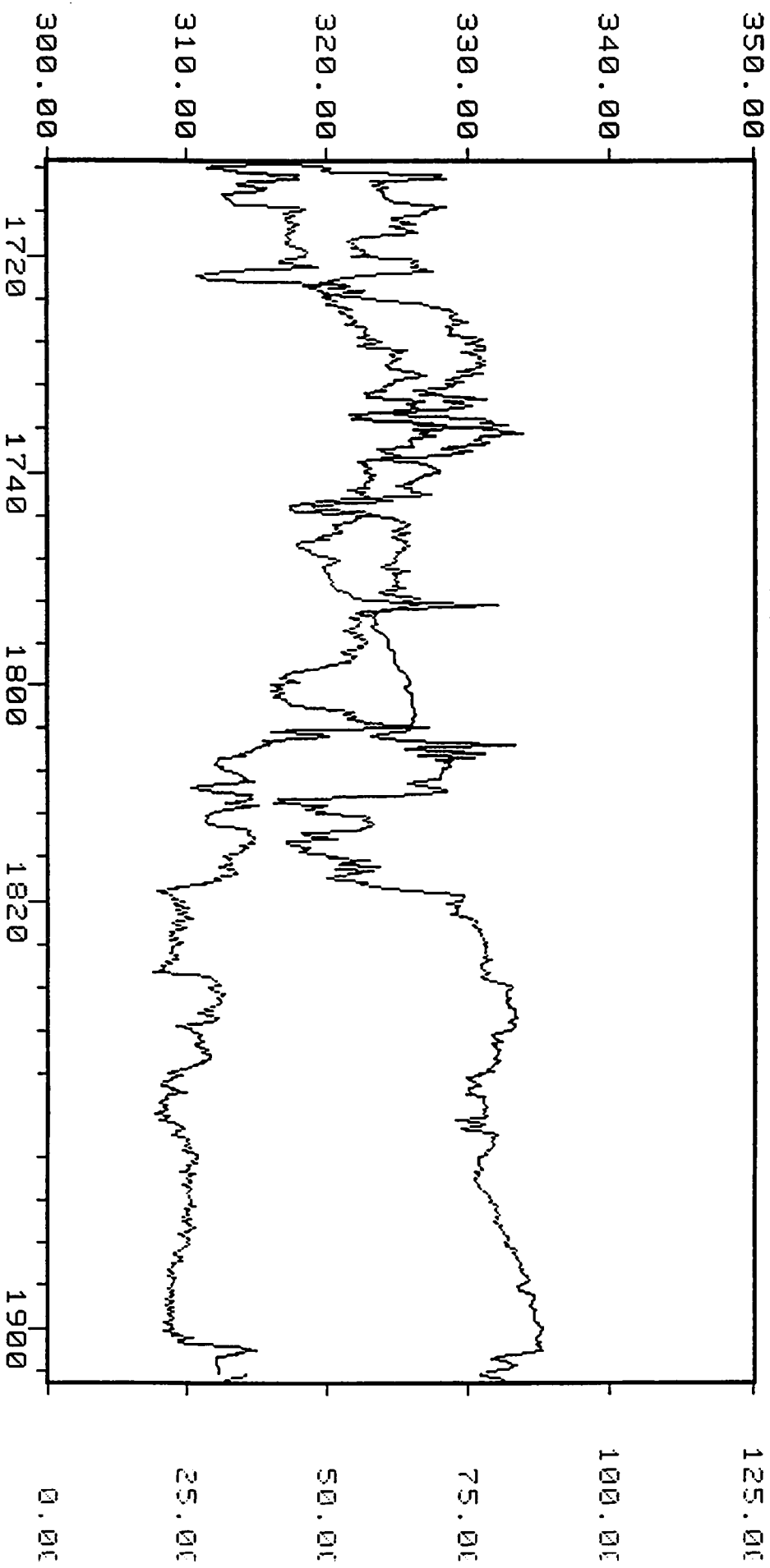


A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A572 19-AUG-97 19:04:48 138 Ω 51.17 -6.34 FC P

HDG deg T	SPR m _b	PHGT k _{ft}	TAS k _{nots}	TAT C	DEW C	WIND deg m/s
40.	850.	4.8	293.	13.7	11.8	182/11

POTE 332.49 OZONE MR 31.56
K ppb



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

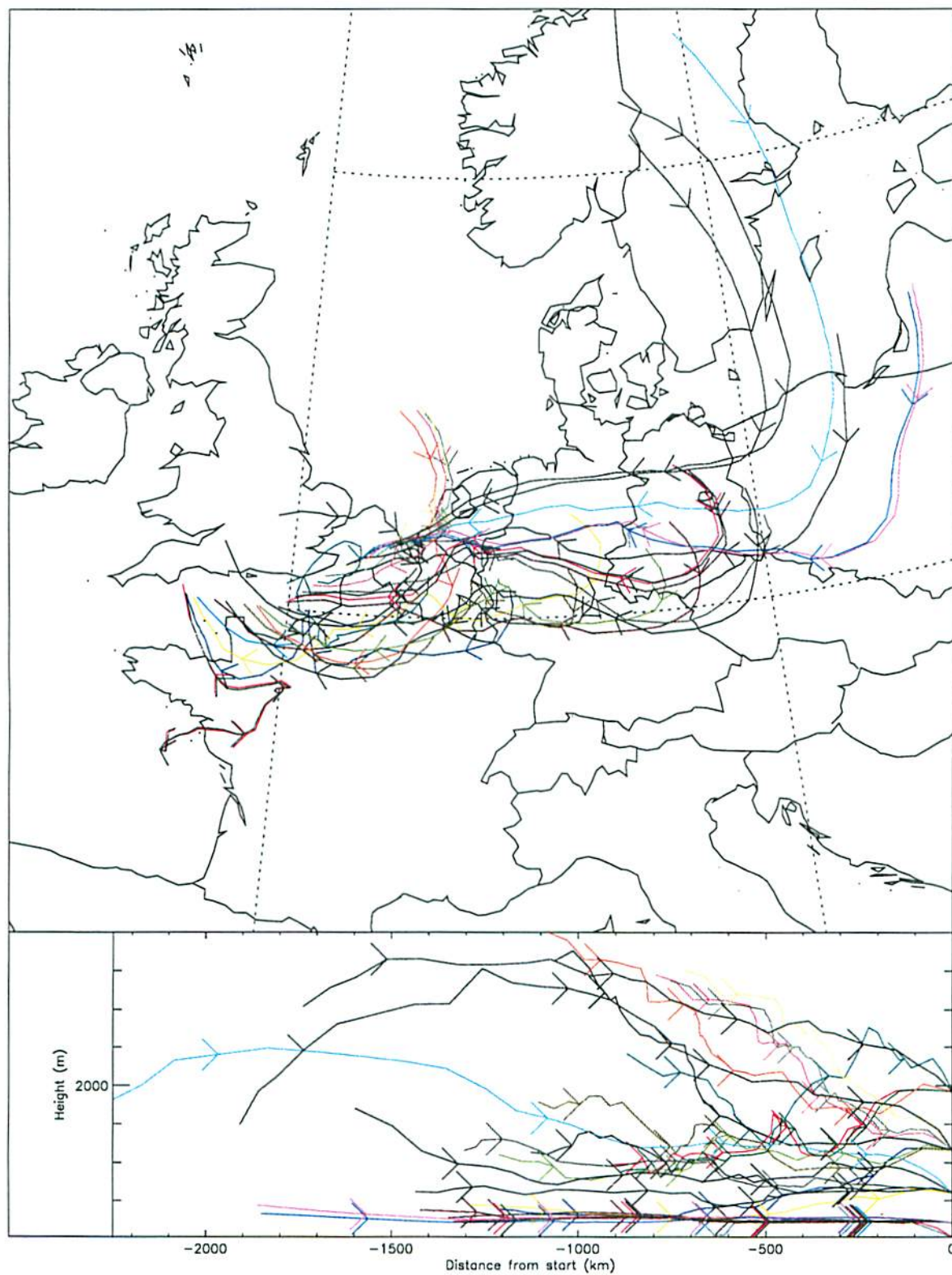
LIST OF FORMS USED ON FLIGHT

No. of forms	Form Title
7 1 1	Aircraft Scientist de-briefing sheet Aircraft Scientist log Aircraft Scientist post flight requirements sheet Interactive log
1 of 3 2 of 3 7 3	Flight Leader pre-flight check form Flight Leader in-flight check form Flight Leader in-flight log Flight Leader Video tape log (photocopy original)
2 Plot	SAFIRE log PAN CC CCN log CO MARSS log DEIMOS log Chemistry log
4 3	Particulate / Filter boom Operator's log 2DC / FSSP / Holography Operator's log Sonde Ejector's log Navigator's log Photographic log (photocopy original)
→ 1	Instrument status forms RTD prints ← RETAINED 3-1 MISSION SCIENTISTS Raw data plots Weather charts Satellite pictures GPS track

TACIA_970819 (3D Model levels)

From 12Z 15/ 8/1997 to 15Z 19/ 8/1997

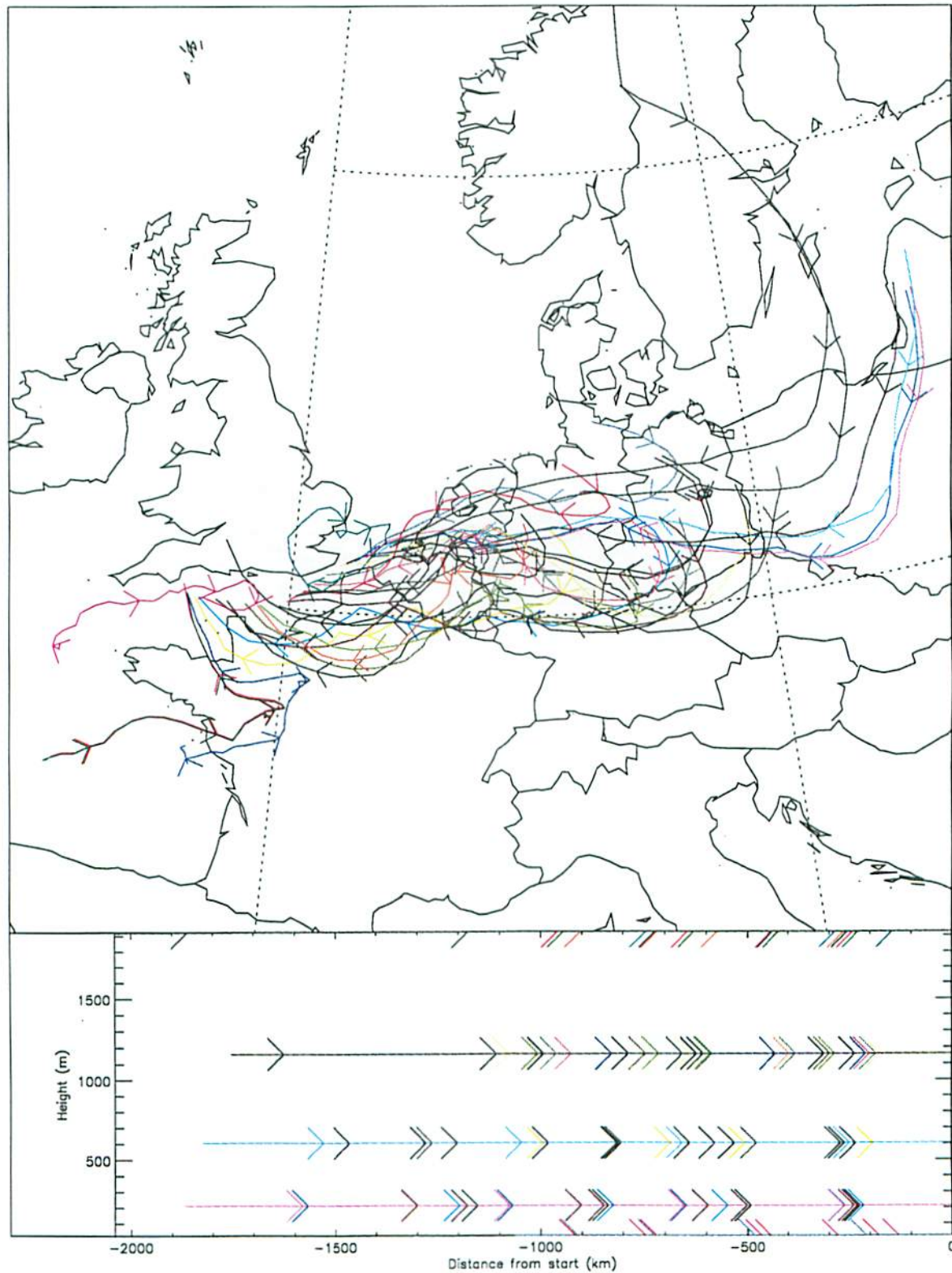
Arrows every 24 hrs



TACIA_970819 (2D Model levels)

From 12Z 15/ 8/1997 to 15Z 19/ 8/1997

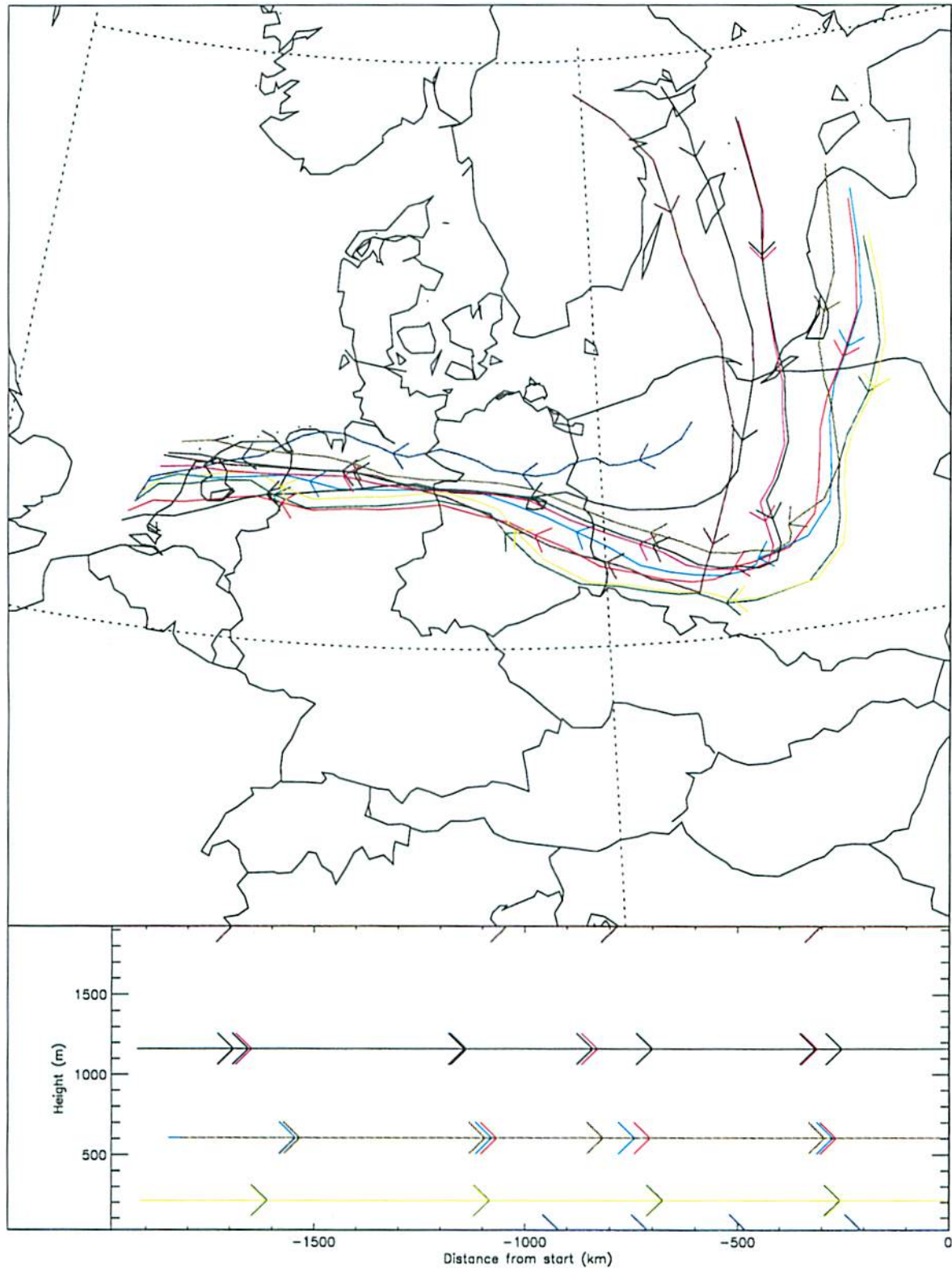
Arrows every 24 hrs



TACIA_970819 (2D Model levels)

From 15Z 16/ 8/1997 to 15Z 19/ 8/1997

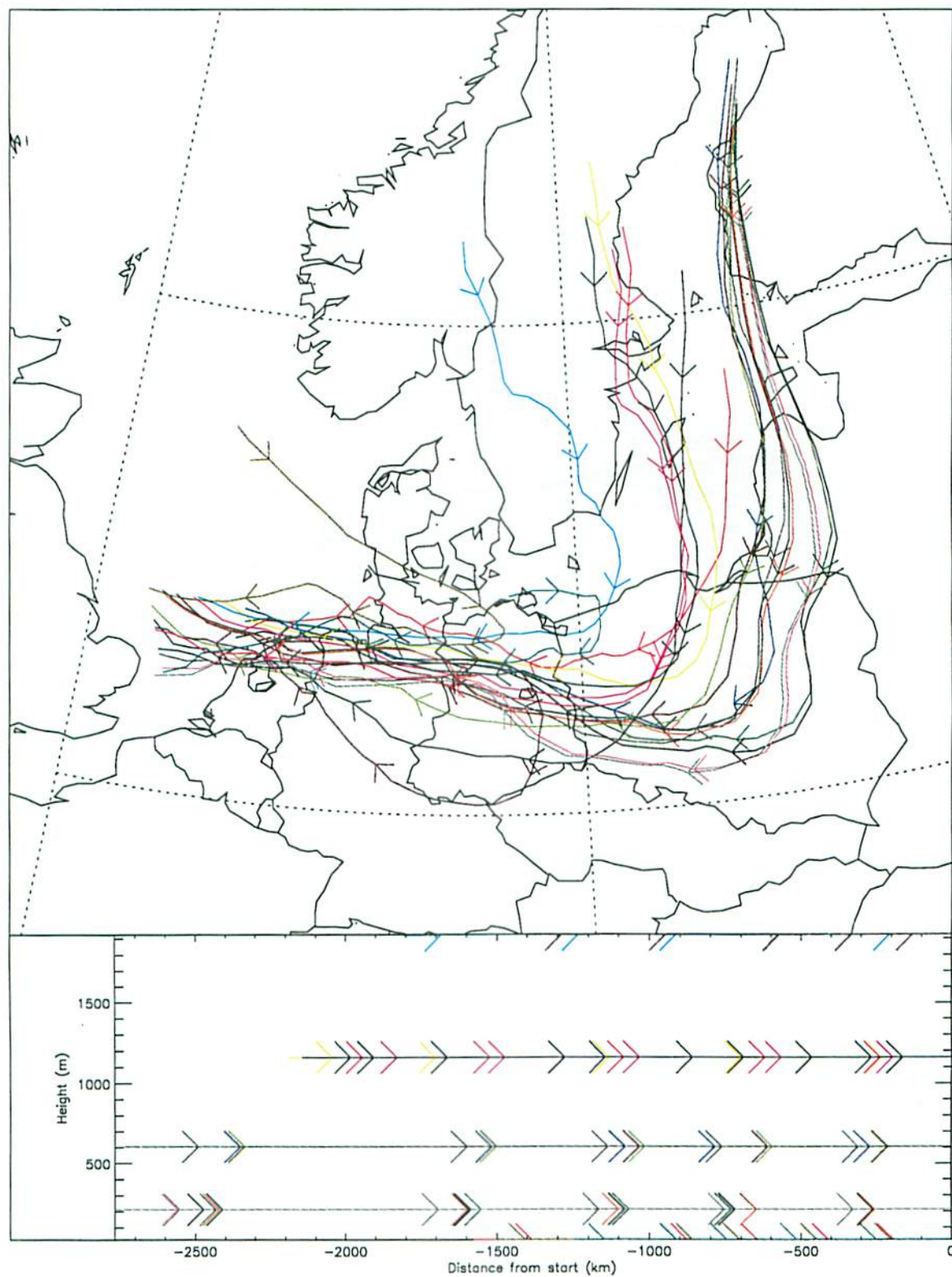
Arrows every 24 hrs



TACIA_970819 (2D Model levels)

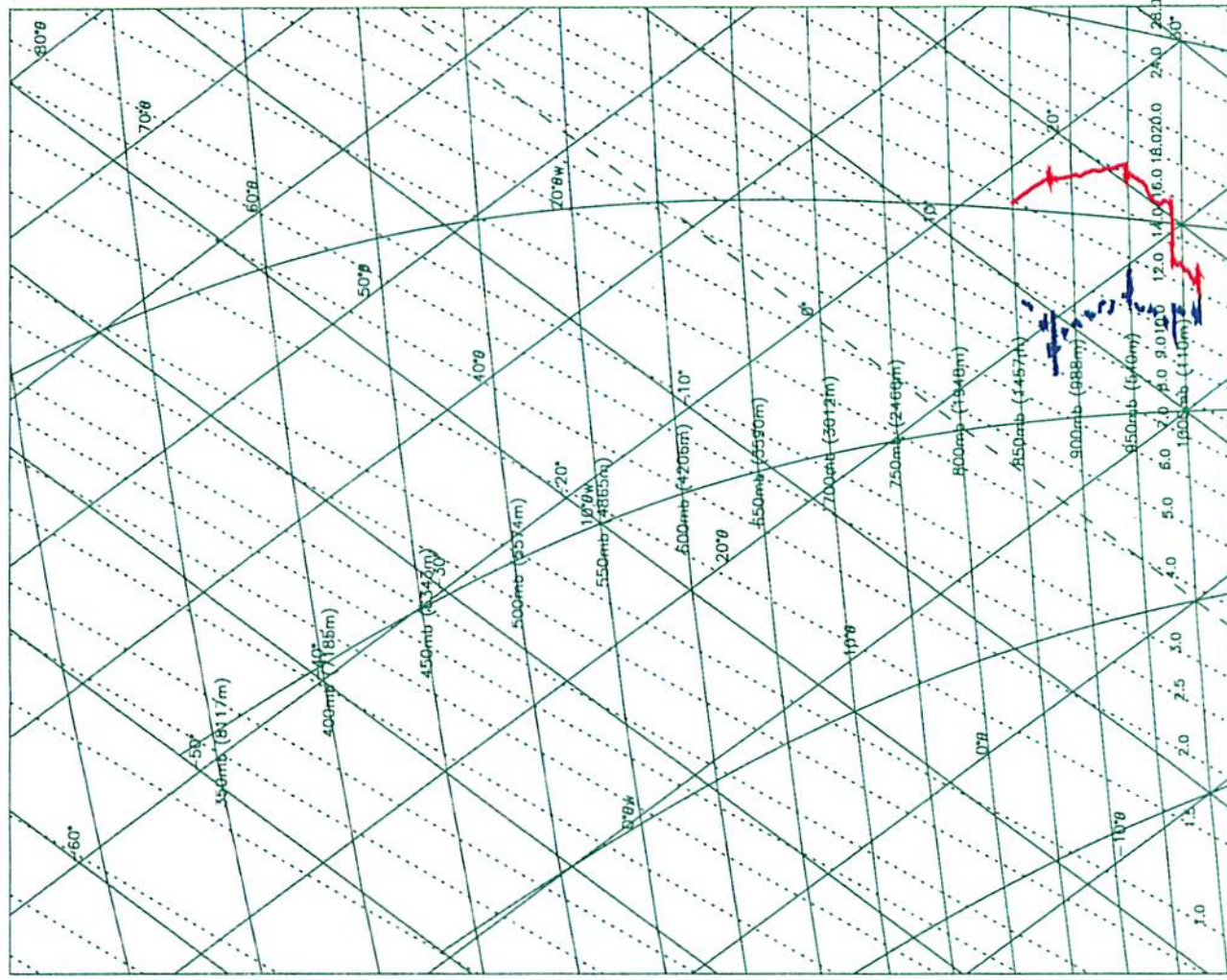
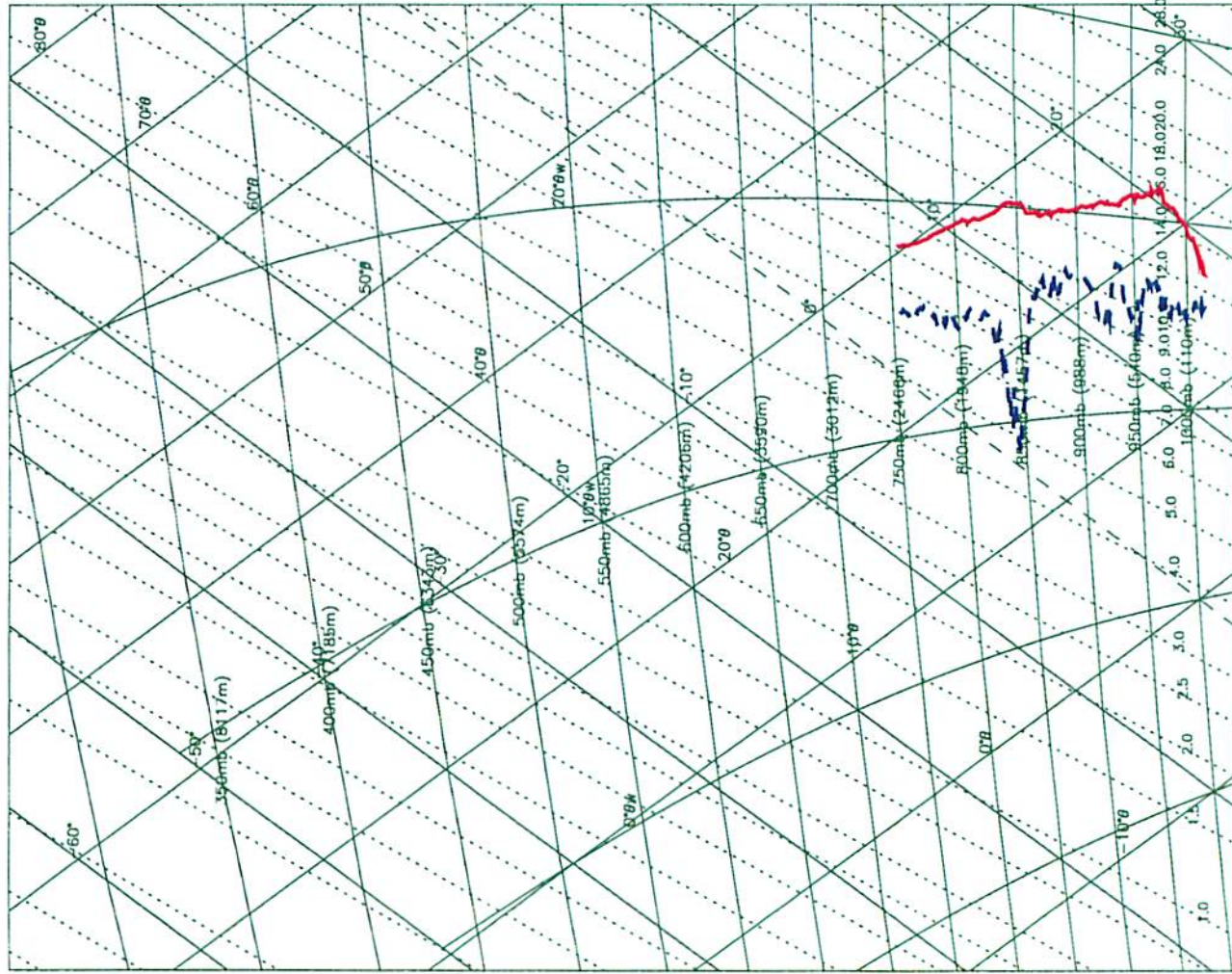
From 18Z 14/ 8/1997 to 18Z 19/ 8/1997

Arrows every 24 hrs



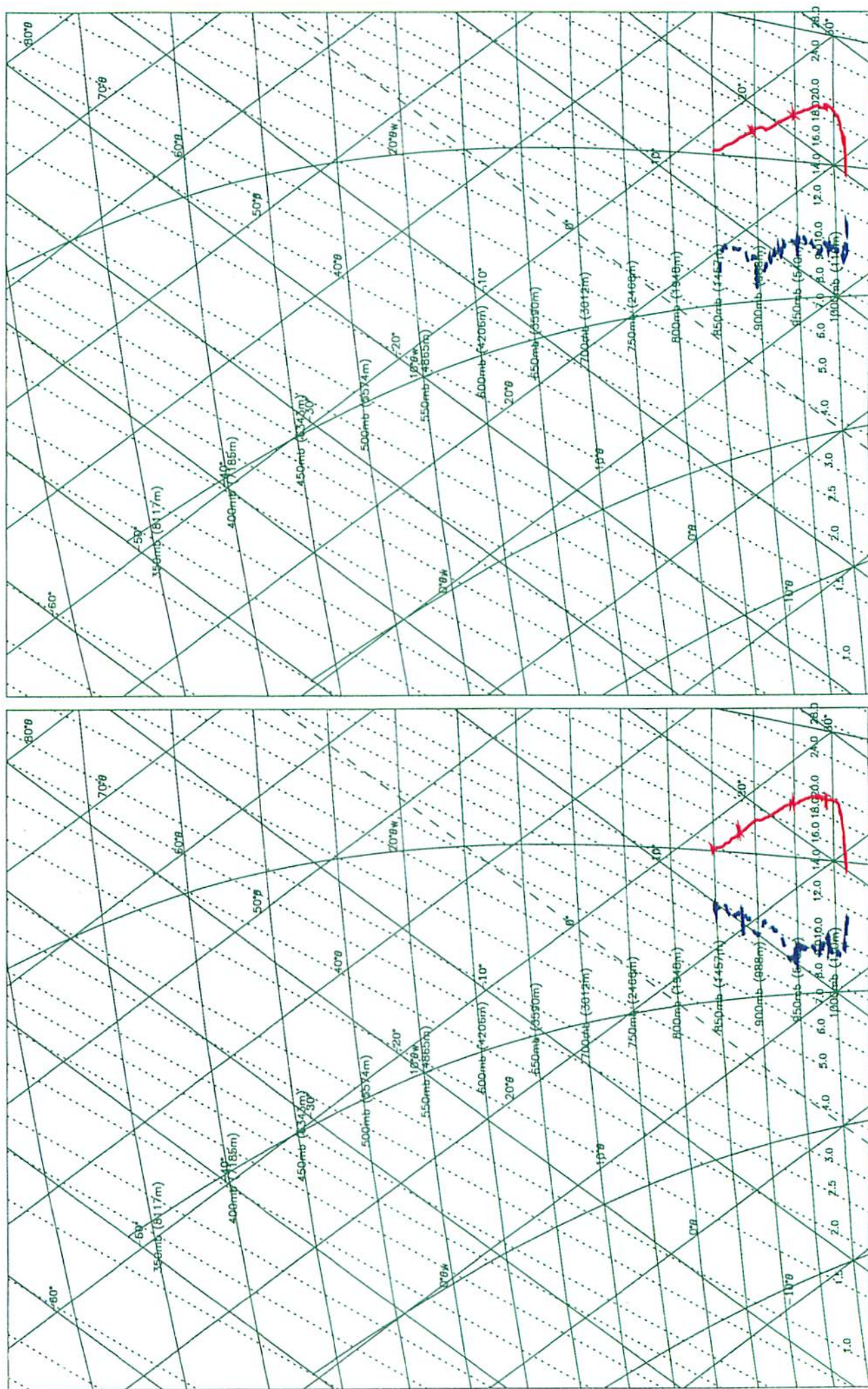
A572 19-AUG-97

P1 (132530-133435) + P2-P5(133435-135302)



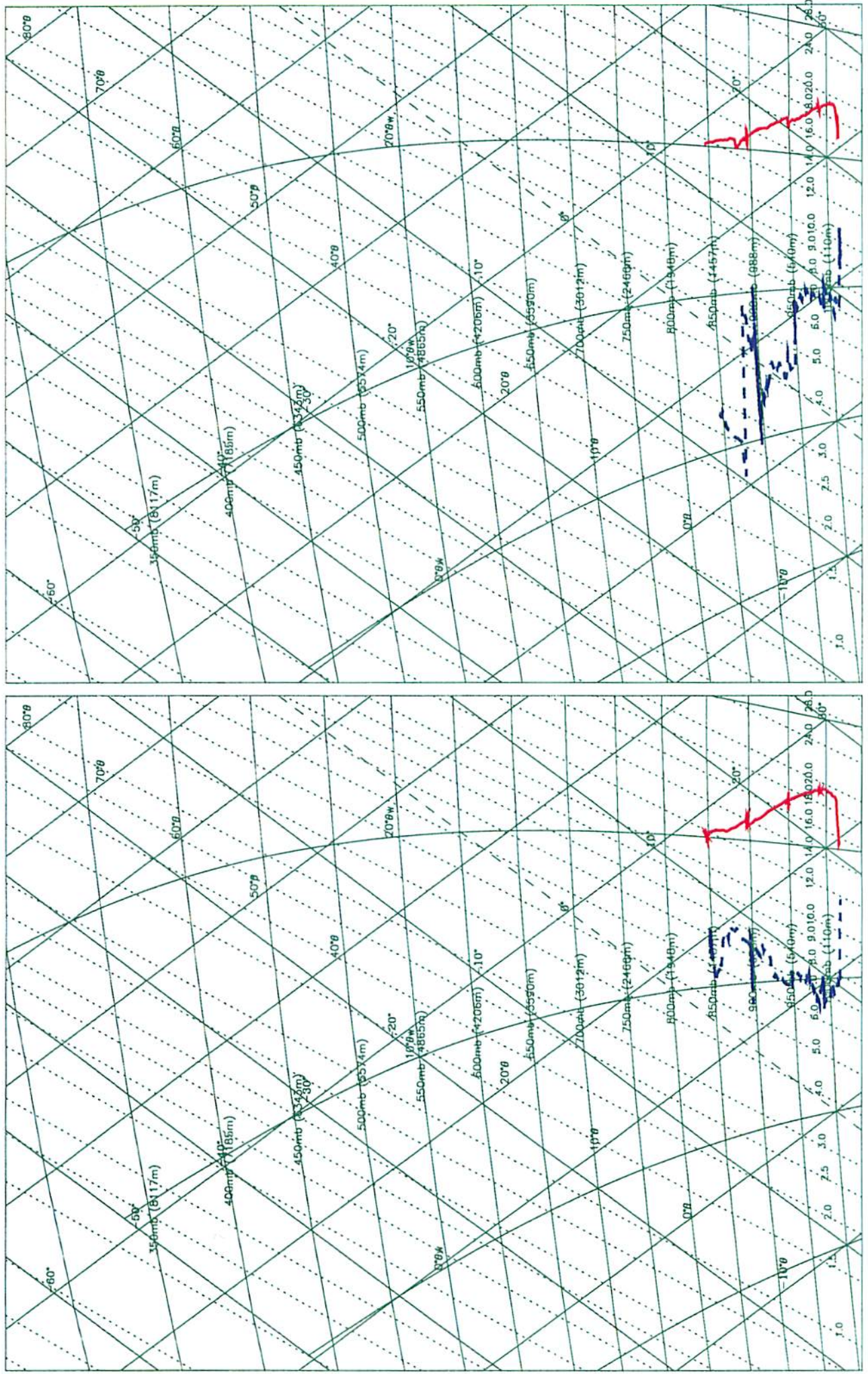
A572 19-AUG-97

P6-P9(135302-140907) + P19-P13(140907-142205)



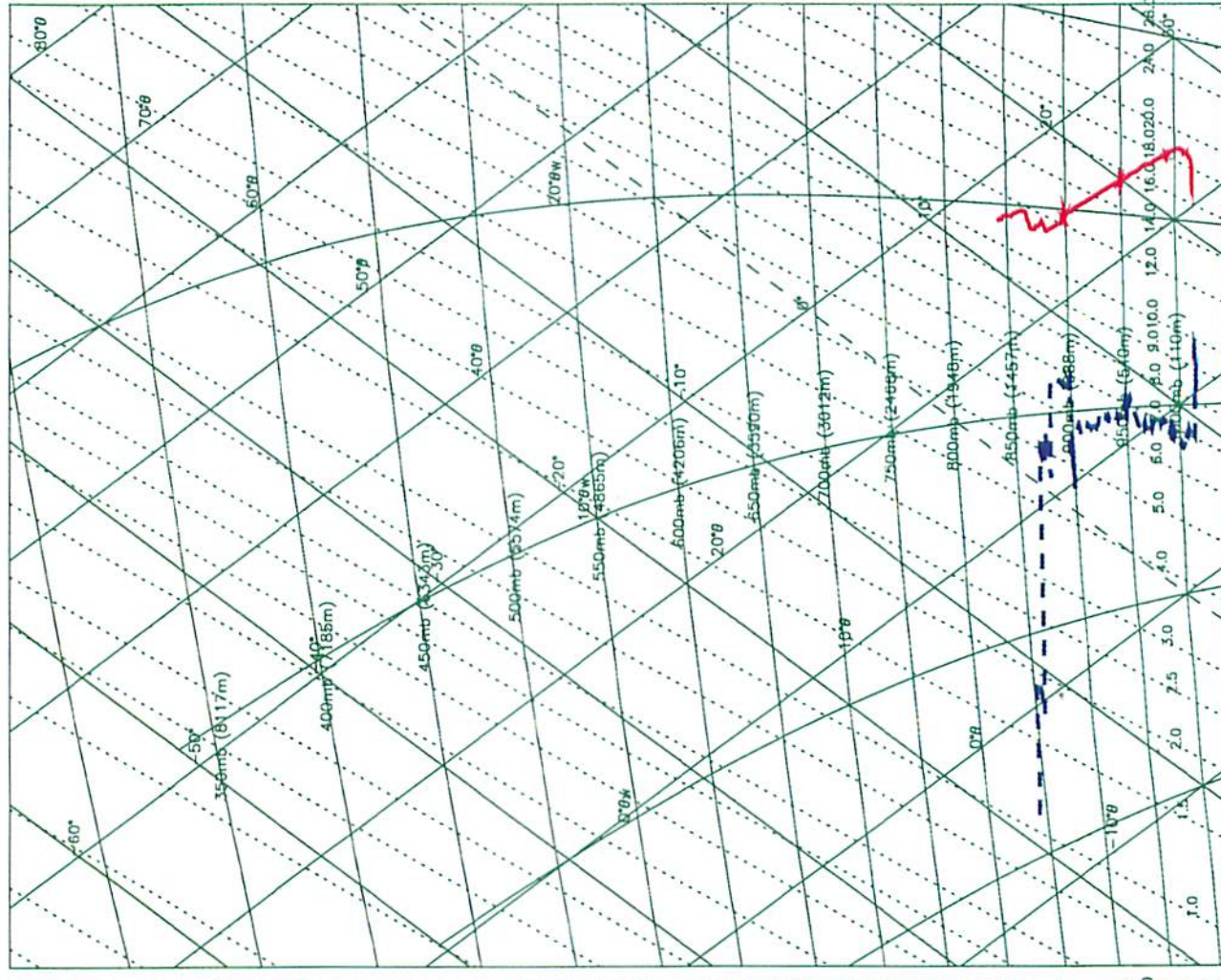
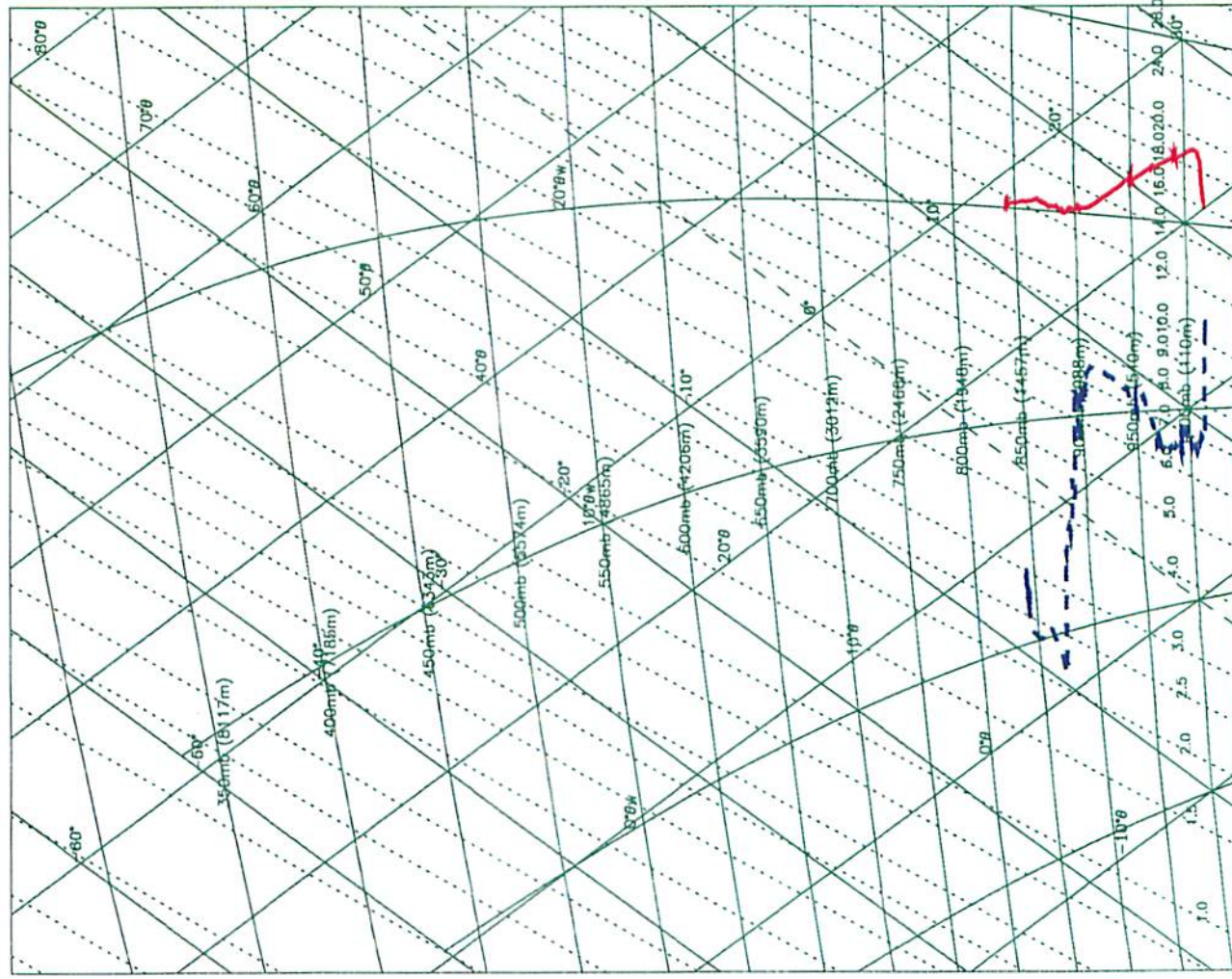
A572 19-AUG-97

P14-P17(142205-144203) + P18-P21(144223-145726)



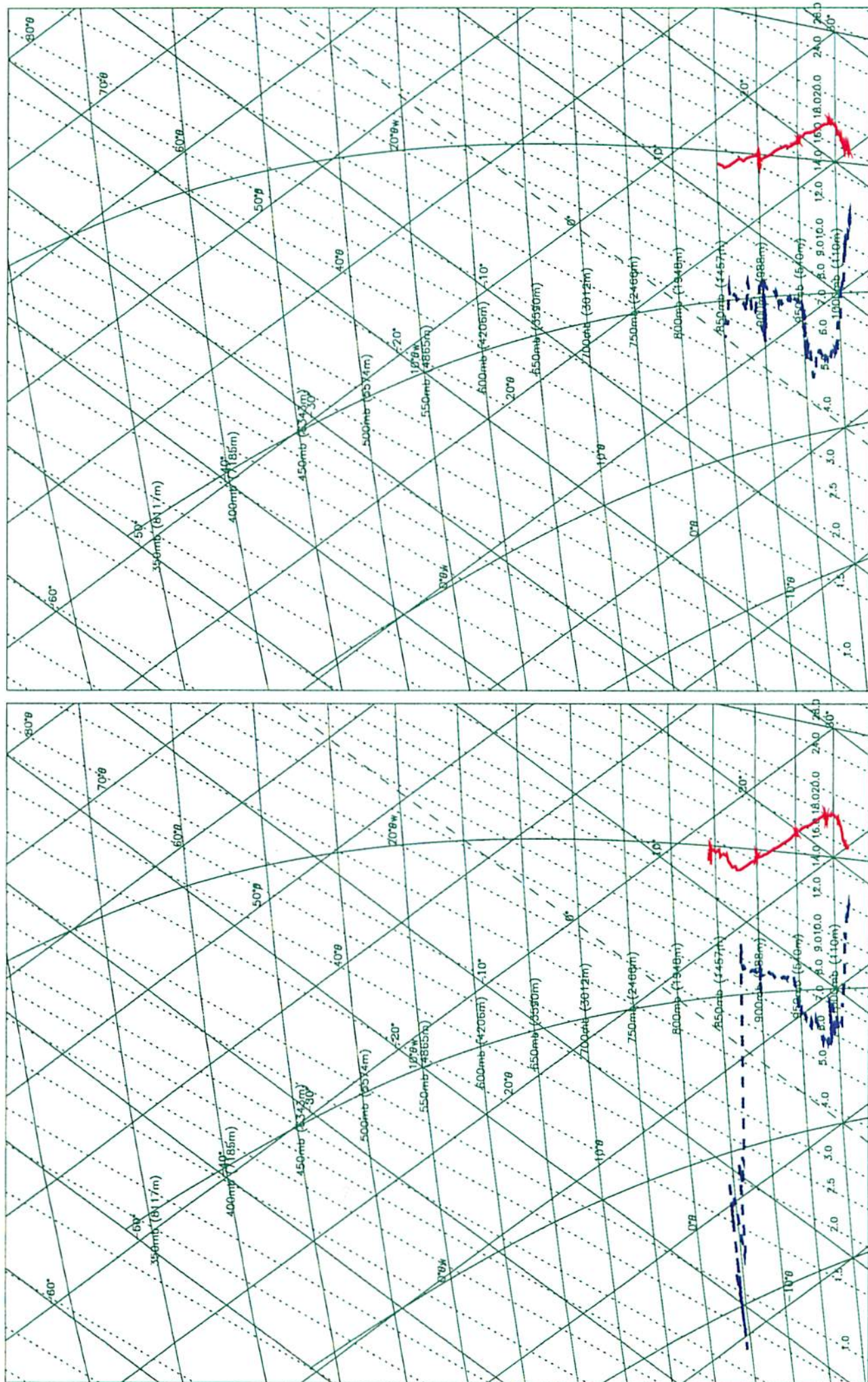
A572 19-AUG-97

P22-P25(145726-150945) + P26-P29(150955-152422)



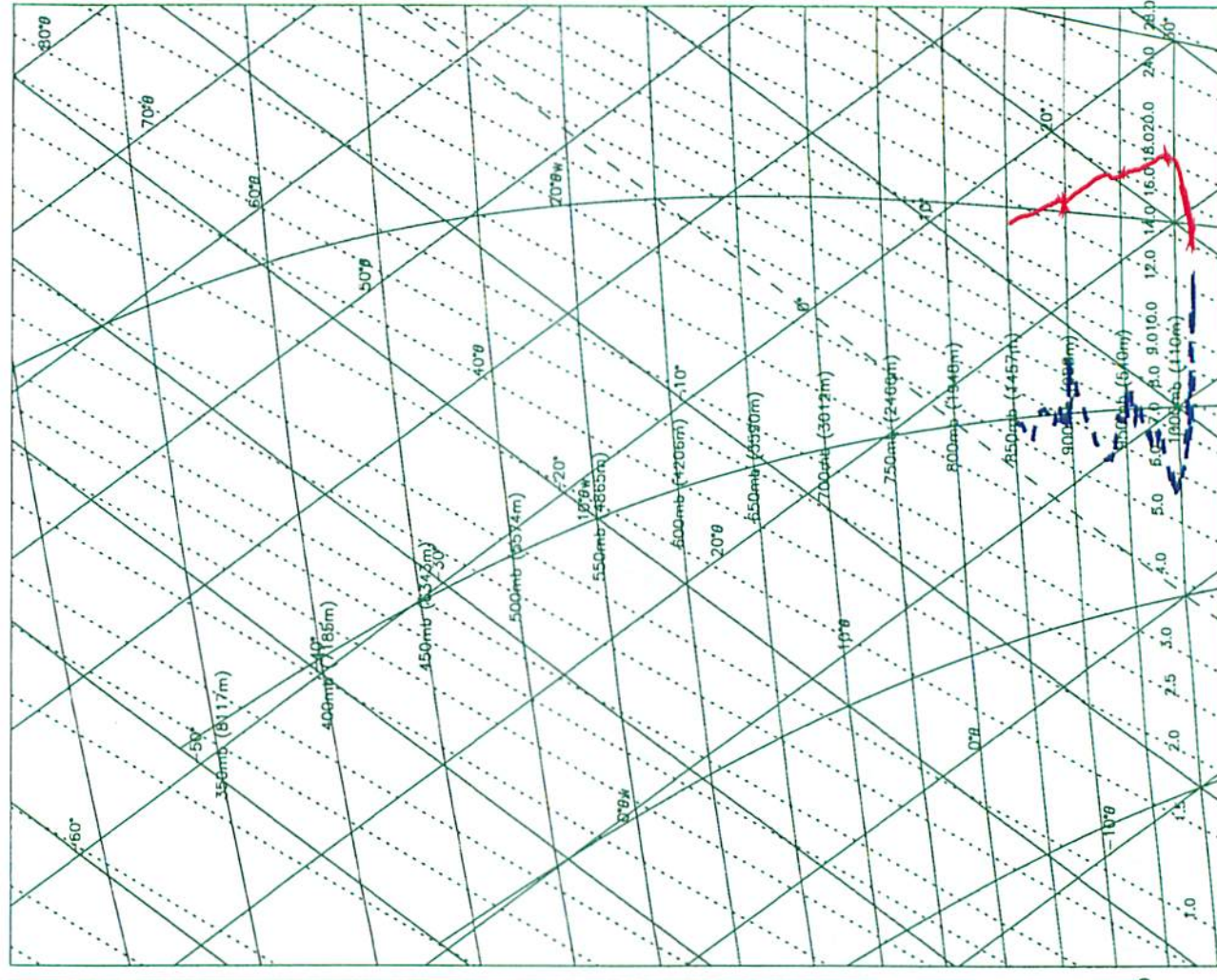
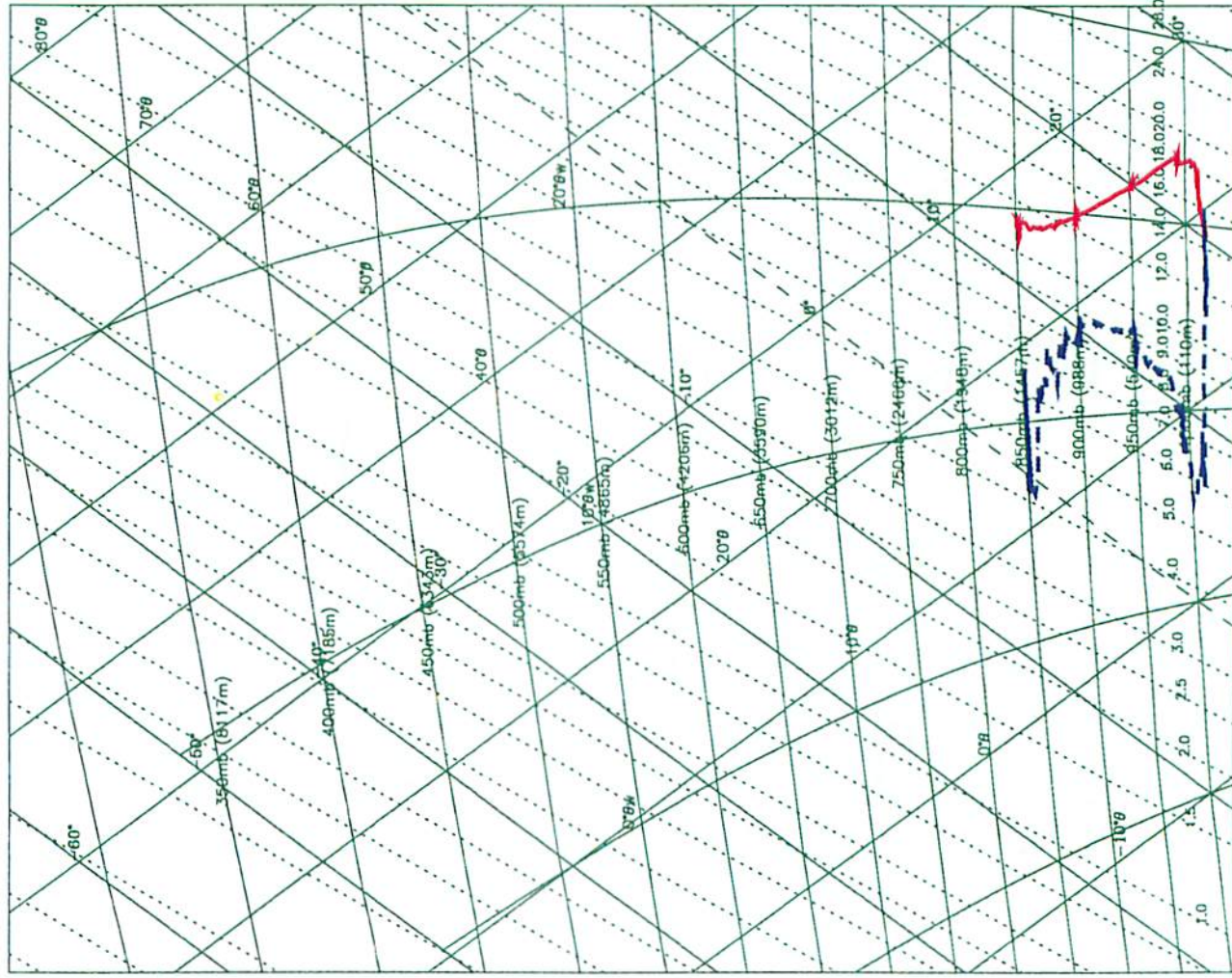
A572 19-AUG-97

P30-P33(152422-154011) + P33-P37(154114-160158)



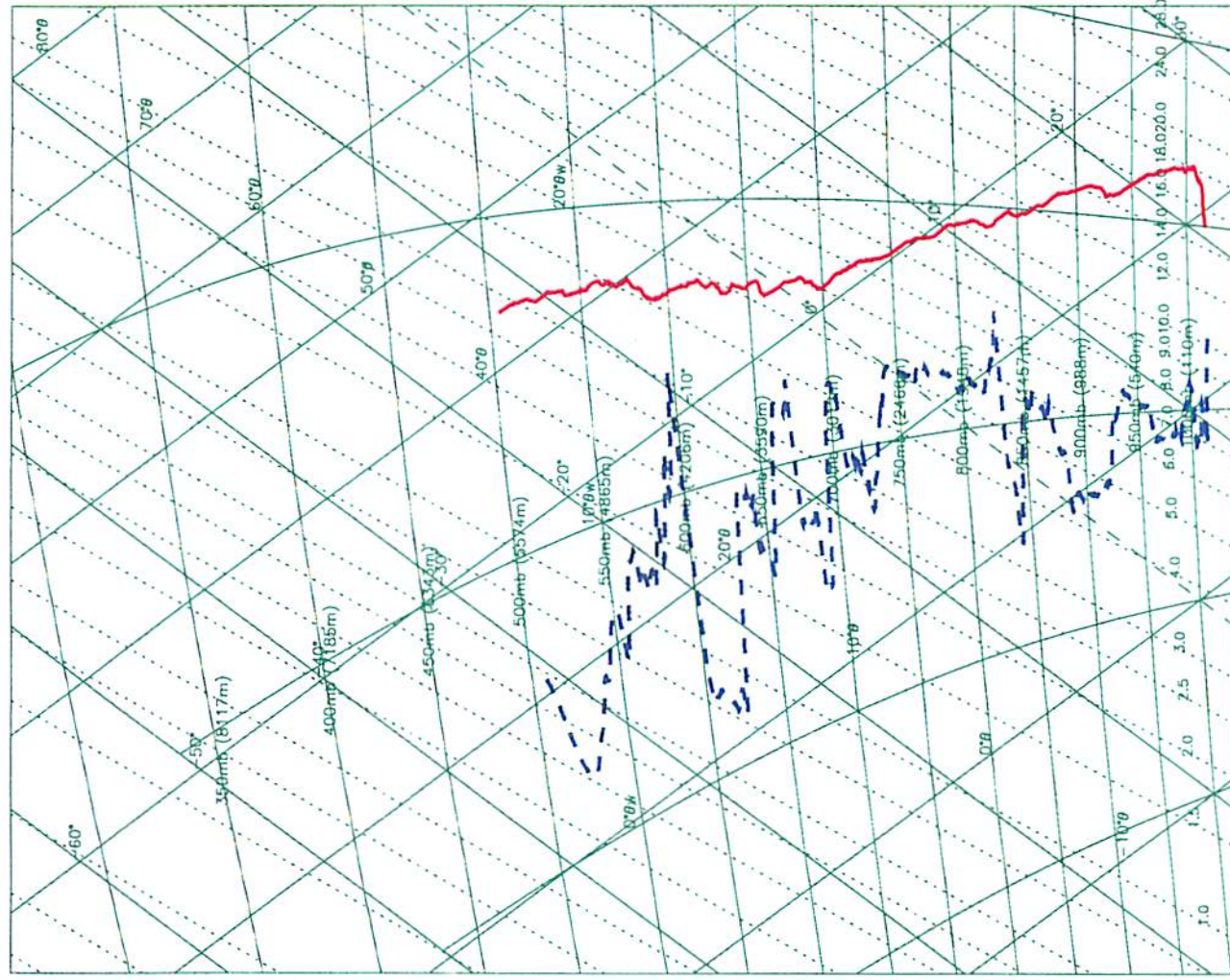
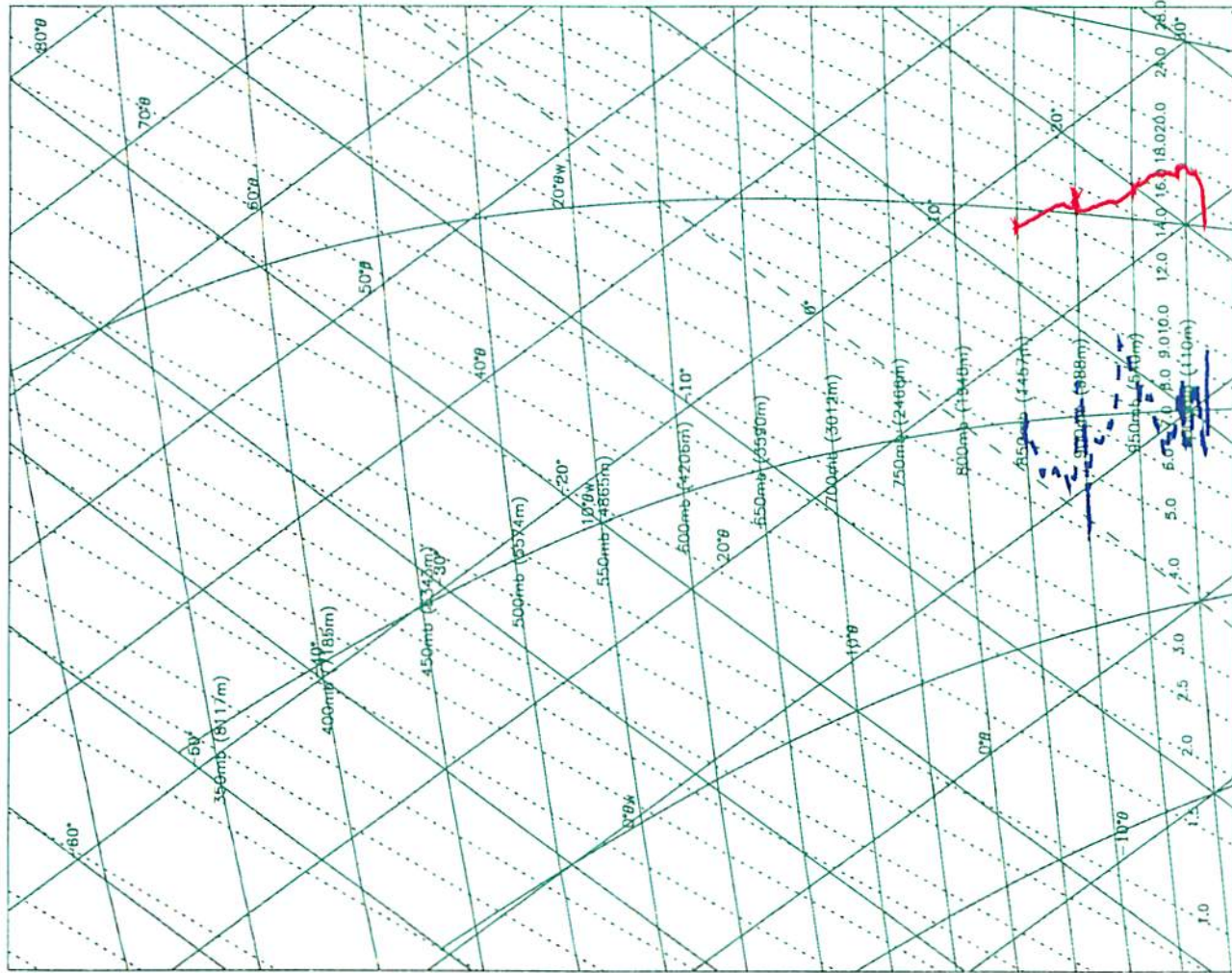
A572 19-AUG-97

P38-P41(160158-161952) + P42-P45(162004-163720)



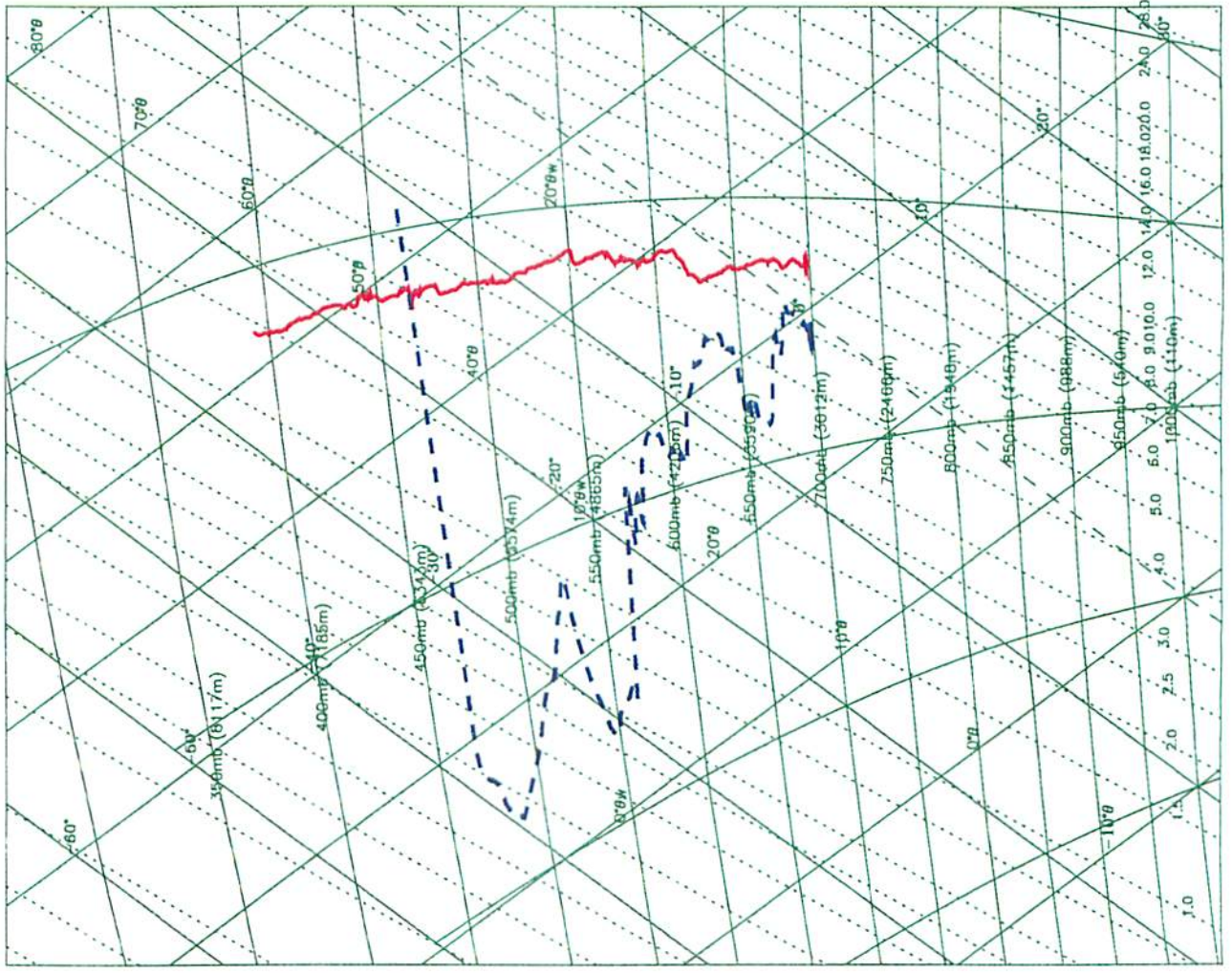
A572 19-AUG-97

P46-P49(163720-165835) + P50(170010-171955)

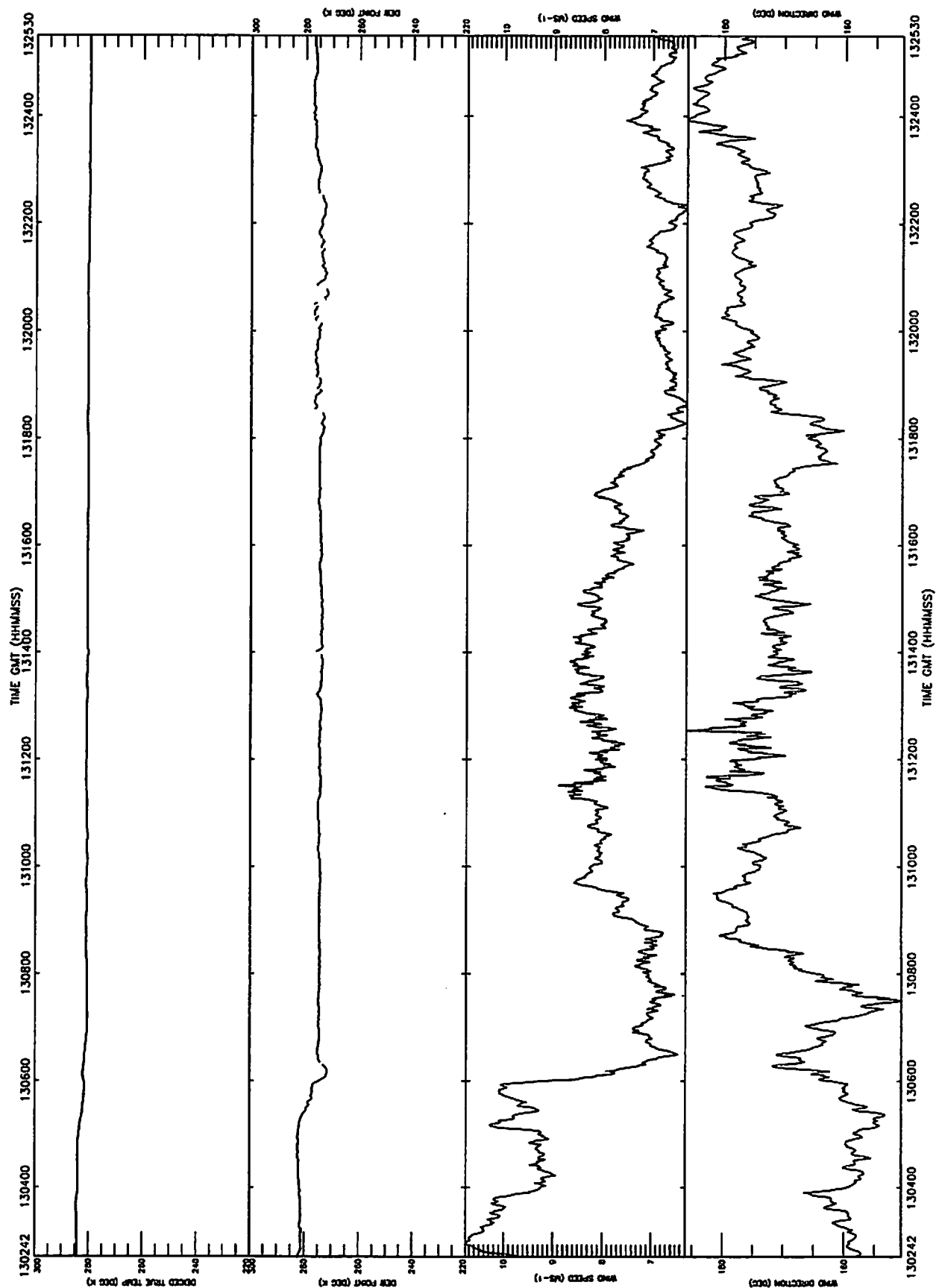


A572 19-AUG-97

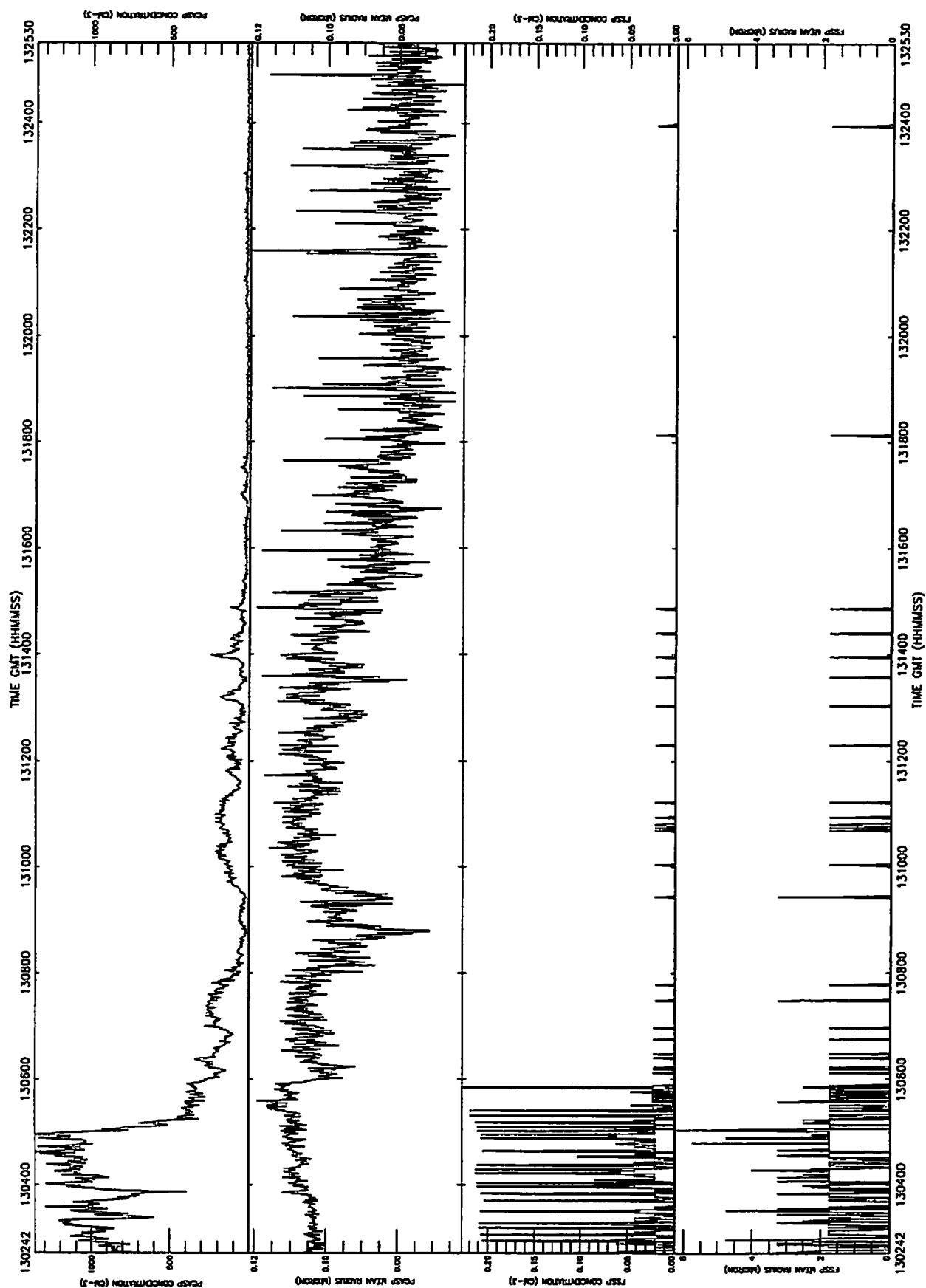
climb(174056-175913)



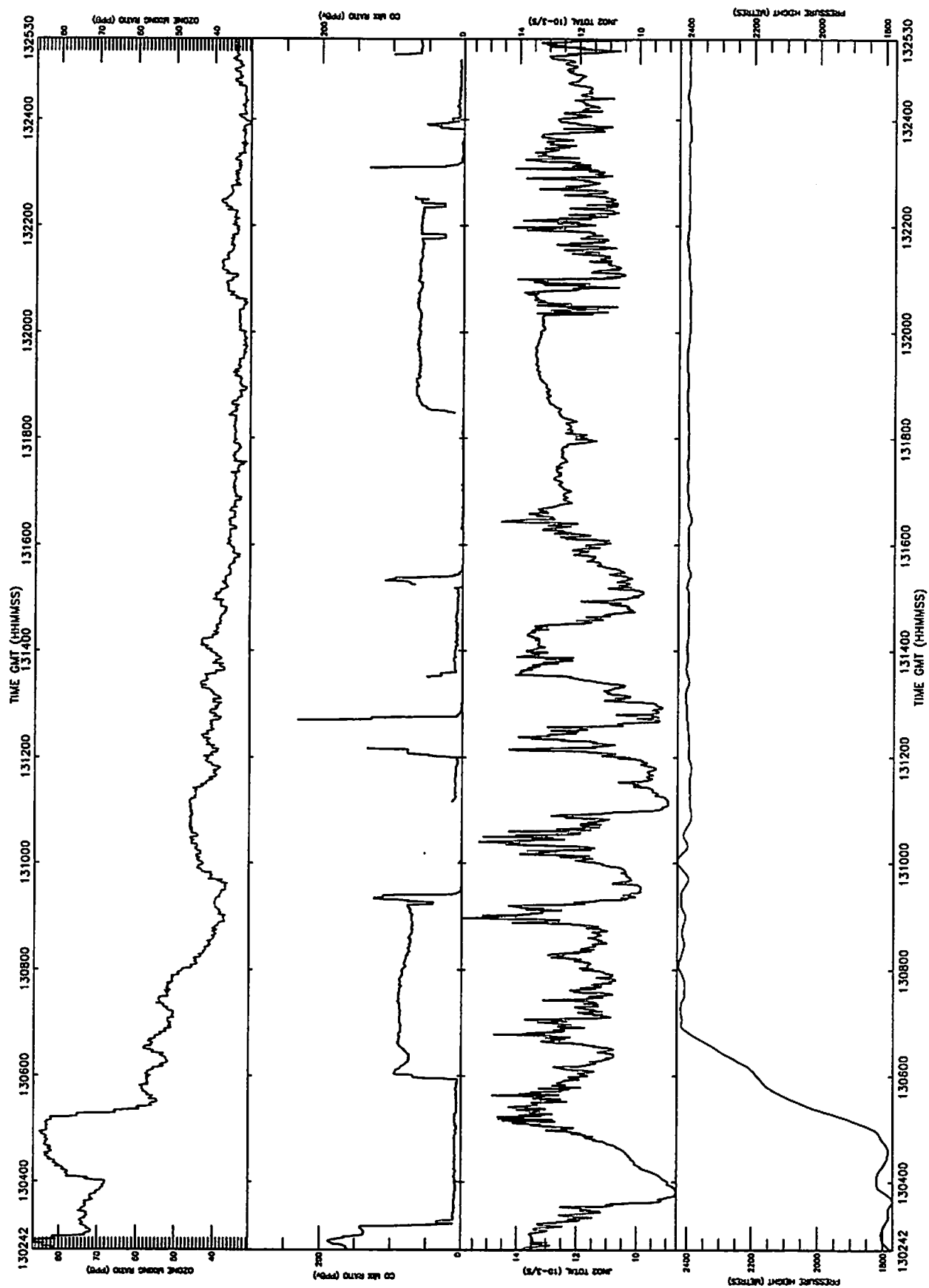
A572 19-AUG-97 R1 FL080 From 130242-132530 Plotted 9-Dec-1997 15:51



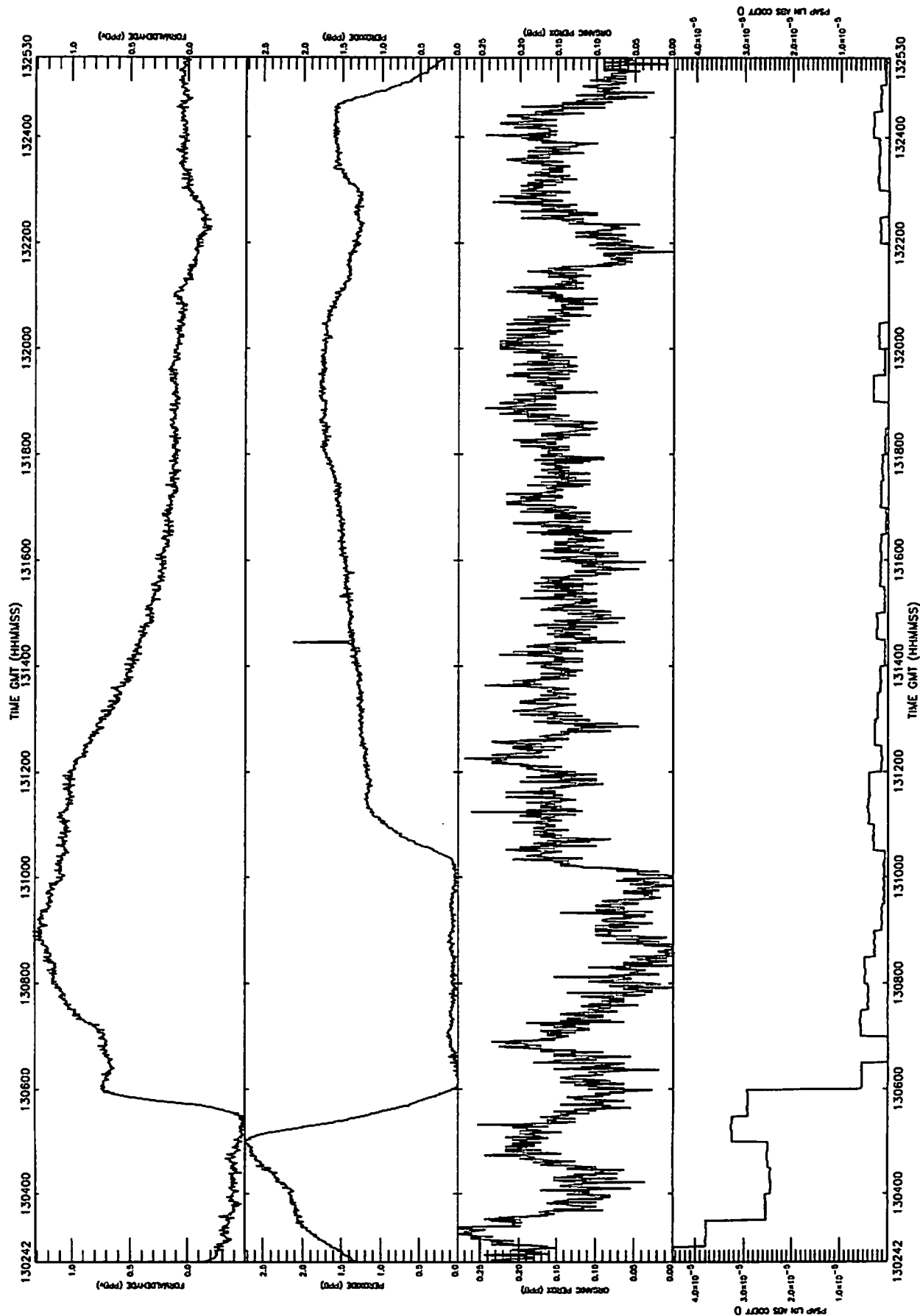
A572 19-AUG-97 R1 FL080 From 130242-132530 Plotted 9-Dec-1997 15:51



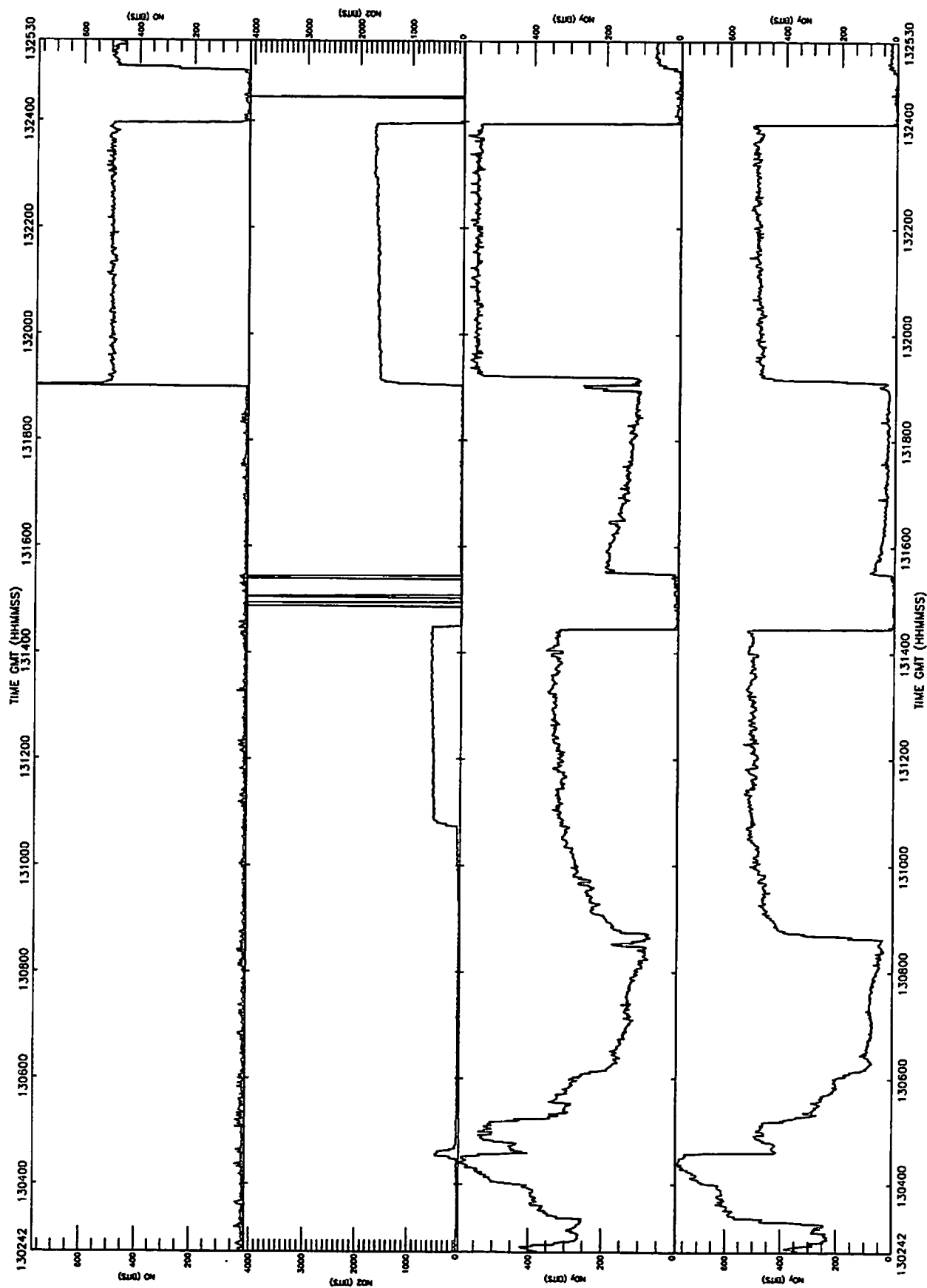
A572 19-AUG-97 R1 FL080 From 130242-132530 Plotted 9-Dec-1997 15:51



A572 19-AUG-97 R1 FL080 From 130242-132530 Plotted 9-Dec-1997 15:51



A572 19-AUG-97 R1 FL080 From 130242-132530 Plotted 9-Dec-1997 15:51



A572 19-AUG-97 R1 FL080 From 130242-132530 *Plotted 9-Dec-1997 15:51*

STATIC PRESSURE (MB)

No of obs 1369
Mean 763.919
Standard dev 18.9615
Max value 817.898
Min value 753.319

DEICED TRUE TEMP (DEG K)

No of obs 1369
Mean 281.089
Standard dev 1.13870
Max value 284.510
Min value 280.045

DEW POINT (DEG K)

No of obs 1369
Mean 275.579
Standard dev 2.46920
Max value 282.369
Min value 271.551

OZONE MIXING RATIO (PPB)

No of obs 1369
Mean 43.7275
Standard dev 13.9662
Max value 86.6450
Min value 30.5641

PCASP CONCENTRATION (CM-3)

No of obs 1369
Mean 181.118
Standard dev 304.525
Max value 1361.86
Min value 4.00013

FSSP CONCENTRATION (CM-3)

No of obs 1369
Mean 6.262976e-03
Standard dev 2.805563e-02
Max value 0.228341
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 1369
Mean 2321.39
Standard dev 194.277
Max value 2431.00
Min value 1770.17

CORRECTED LATITUDE (DEGREES)

No of obs 1369
Mean 50.7077
Standard dev 0.308213
Max value 51.1944
Min value 50.1458

CORRECTED LONGITUDE (DEGREES)

No of obs 1369
Mean -3.09417
Standard dev 0.242304
Max value -2.55137
Min value -3.35701

NORTHWARD WIND COMPT (M S-1)

No of obs 1369
Mean 7.55955
Standard dev 0.908787
Max value 10.0681
Min value 6.03984

EASTWARD WIND COMPT (M S-1)

No of obs 1369
Mean -1.27569
Standard dev 1.17000
Max value 0.840302
Min value -4.48006

VERTICAL WIND COMPT (M S-1)

No of obs 1369
Mean -4.766639e-02
Standard dev 0.306062
Max value 1.23203
Min value -0.969925

WIND SPEED (MS-1)

No of obs 1369
Mean 7.73702
Standard dev 1.05195
Max value 10.7726
Min value 6.29368

WIND DIRECTION (DEG)

Mean 170.421

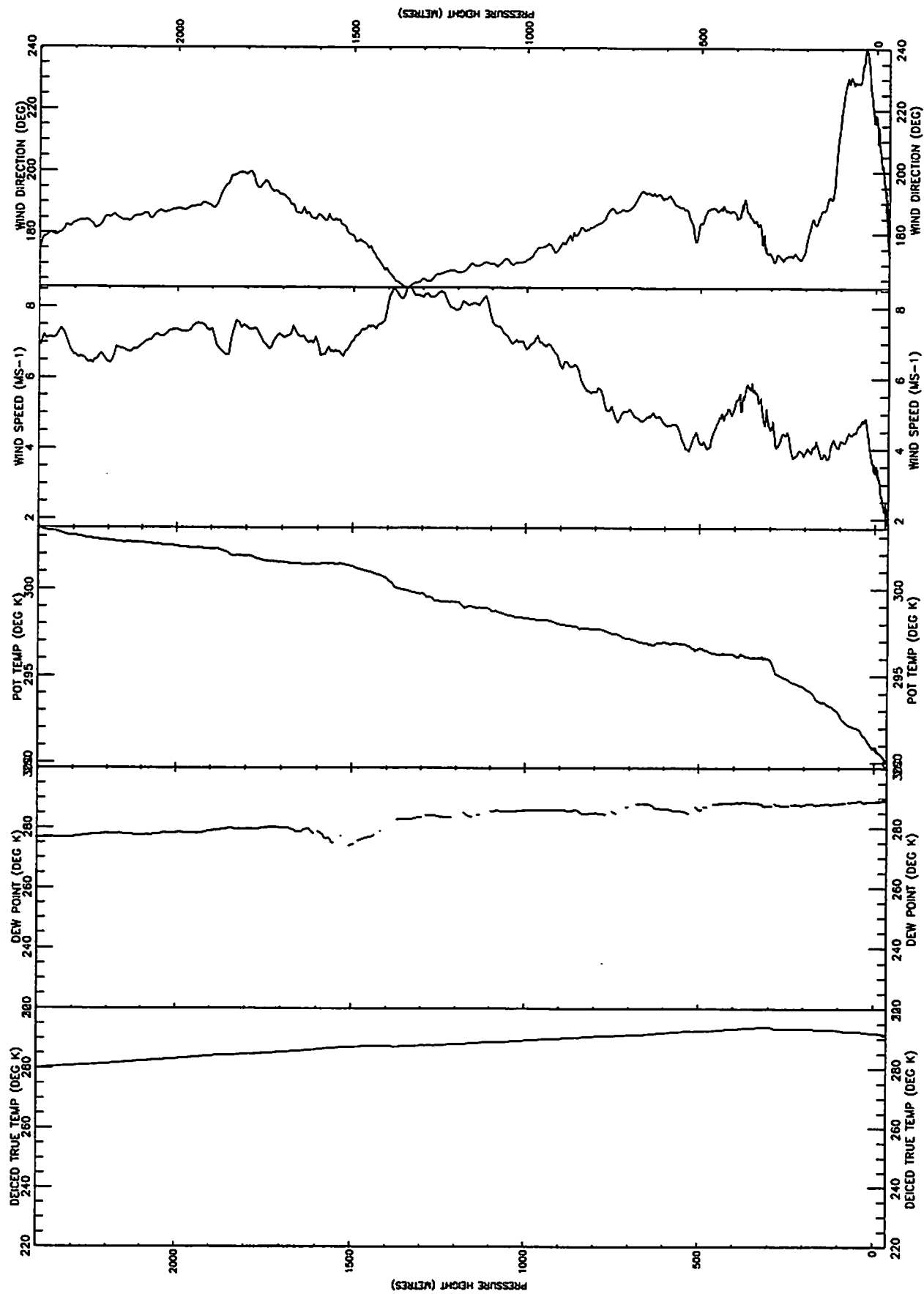
TRUE AIR SPEED (M S-1)

No of obs 1369
Mean 106.015
Standard dev 2.56195
Max value 111.252
Min value 96.1649

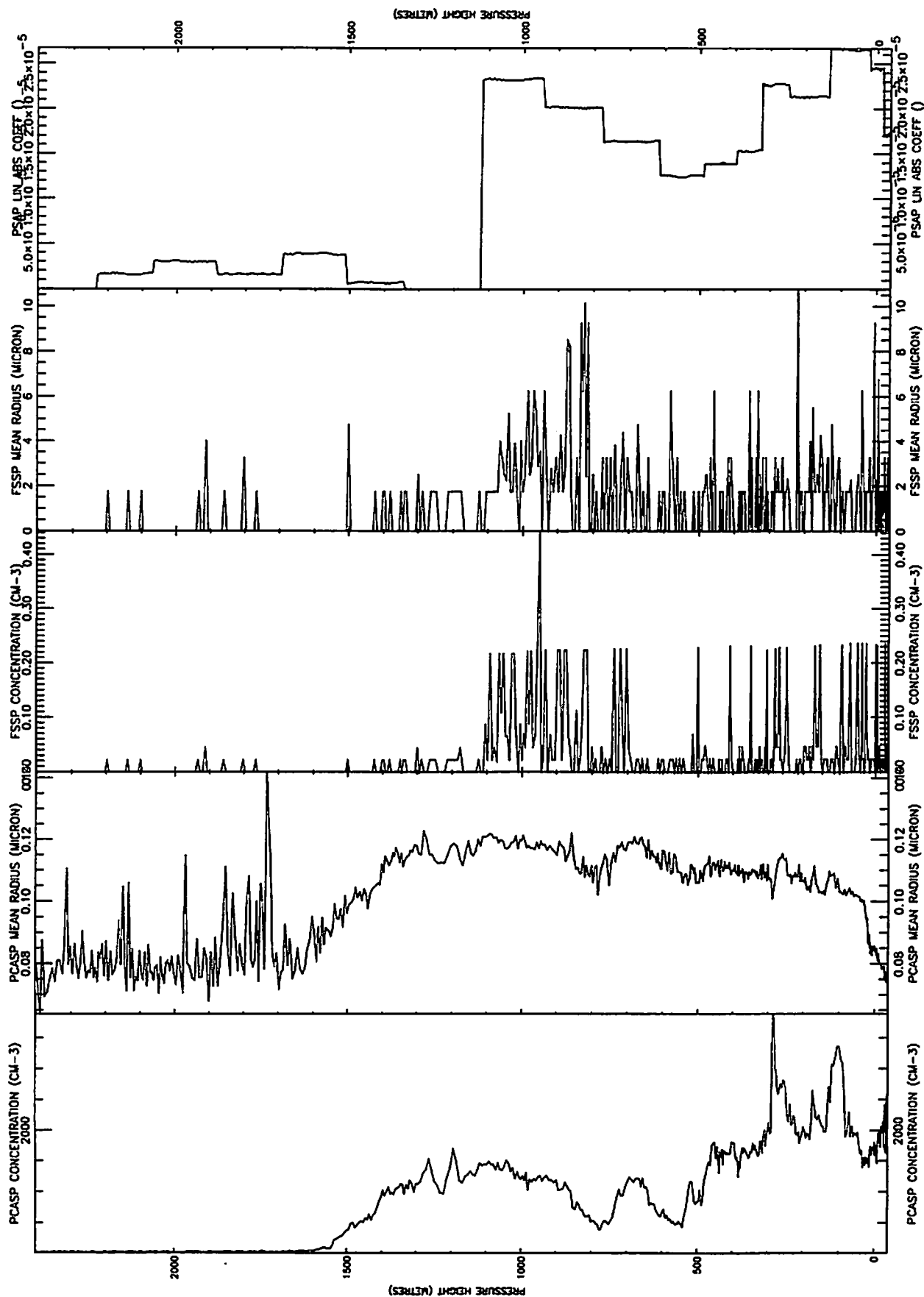
HEADING (DEG)

Mean 204.028

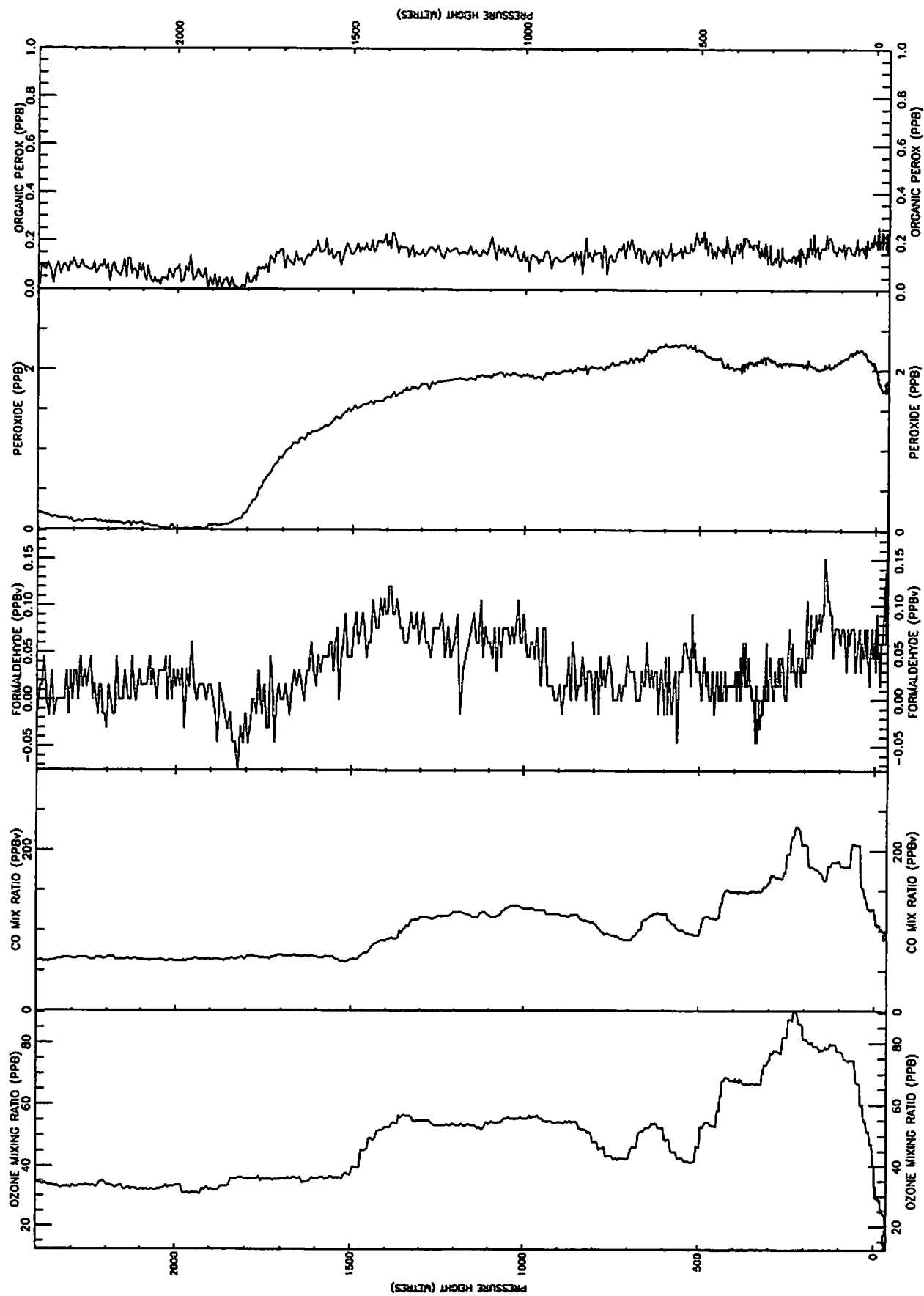
A572 19-AUG-97 P1 FL080-50ft From 132530-133435 Plotted 9-Dec-1997 15:54



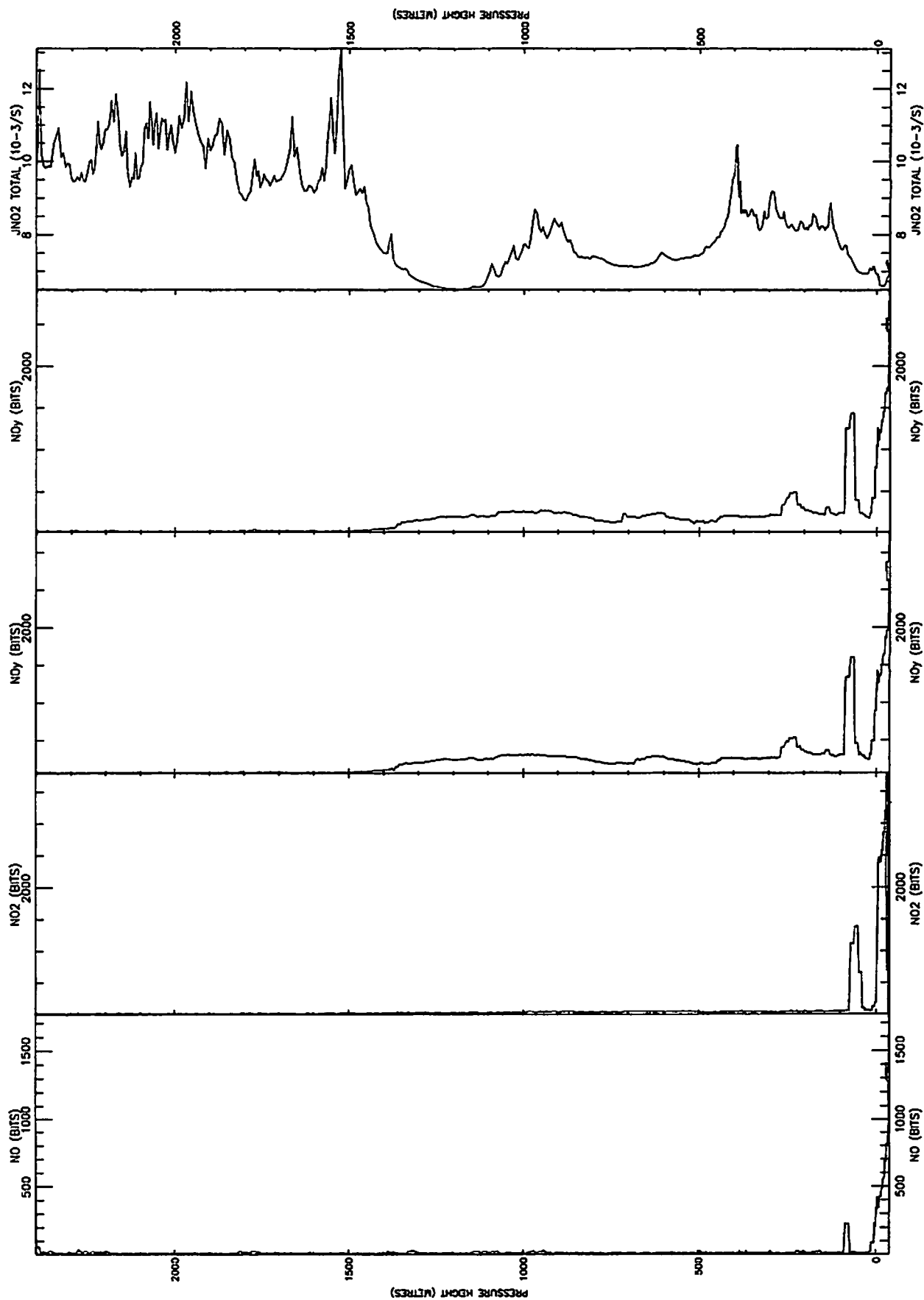
A572 19-AUG-97 P1 FL080-50ft From 132530-133435 Plotted 9-Dec-1997 15:54



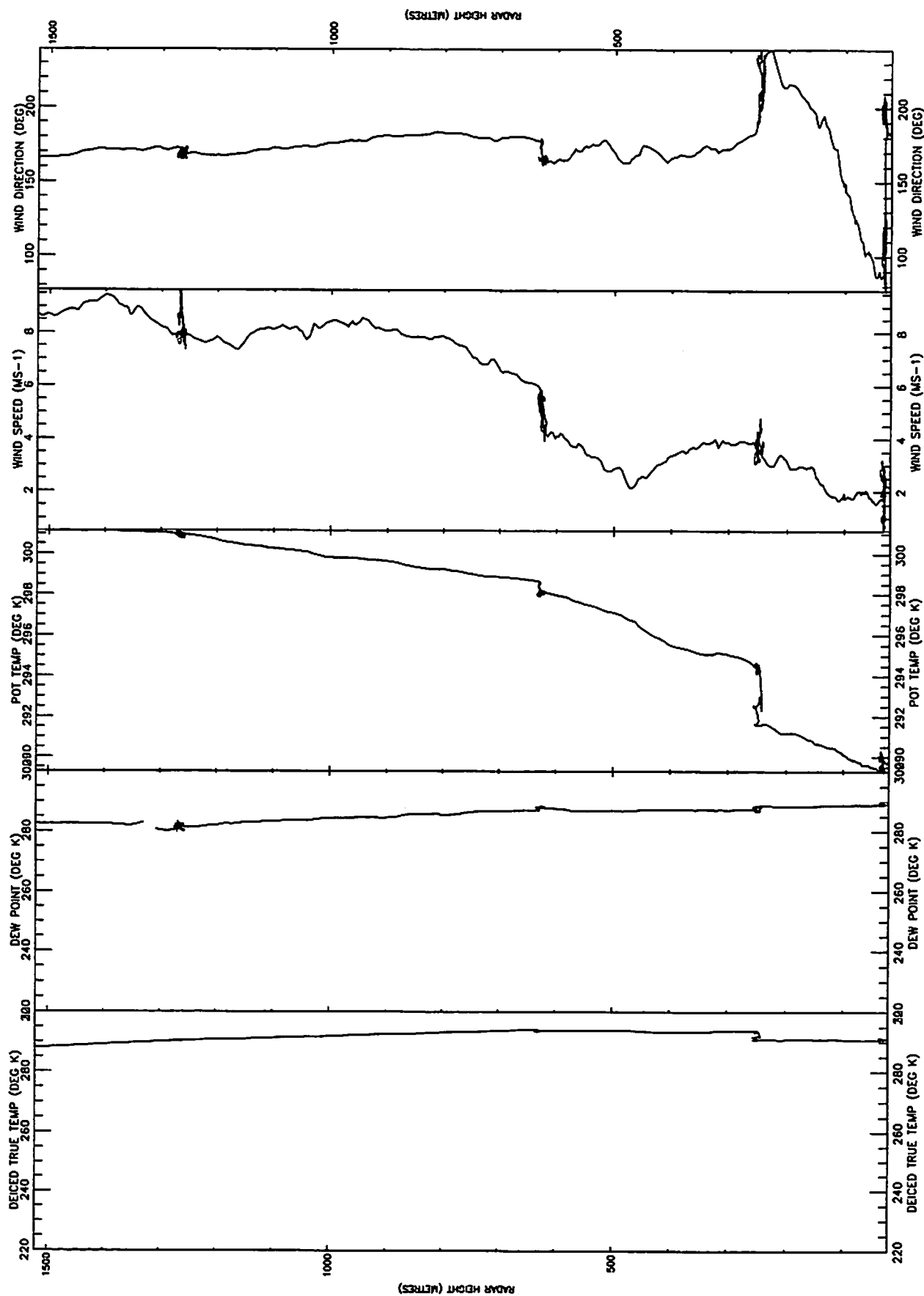
A572 19-AUG-97 P1 FL080-50ft From 132530-133435 Plotted 9-Dec-1997 15:54



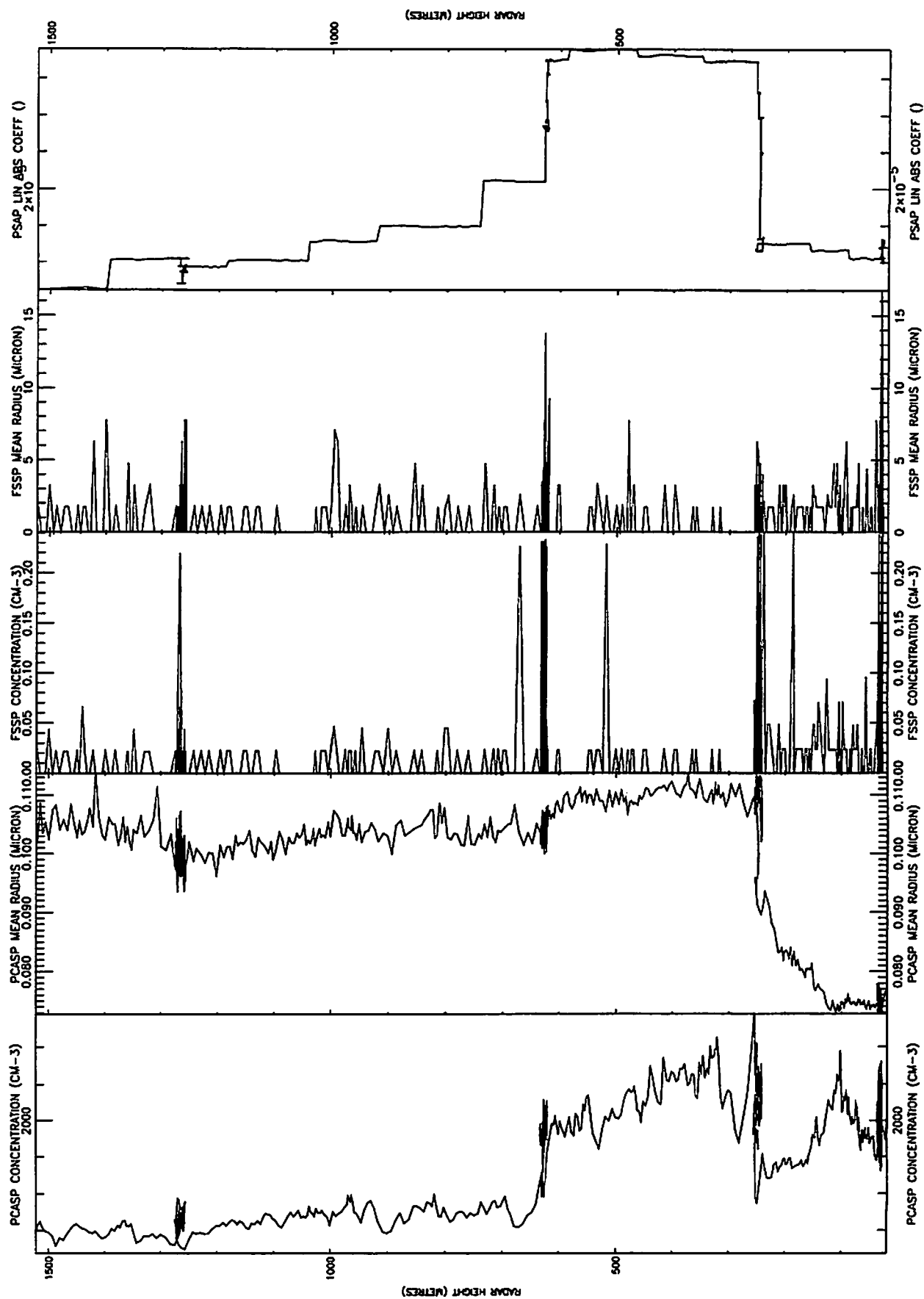
A572 19-AUG-97 P1 FL080-50ft From 132530-133435 Plotted 9-Dec-1997 15:54



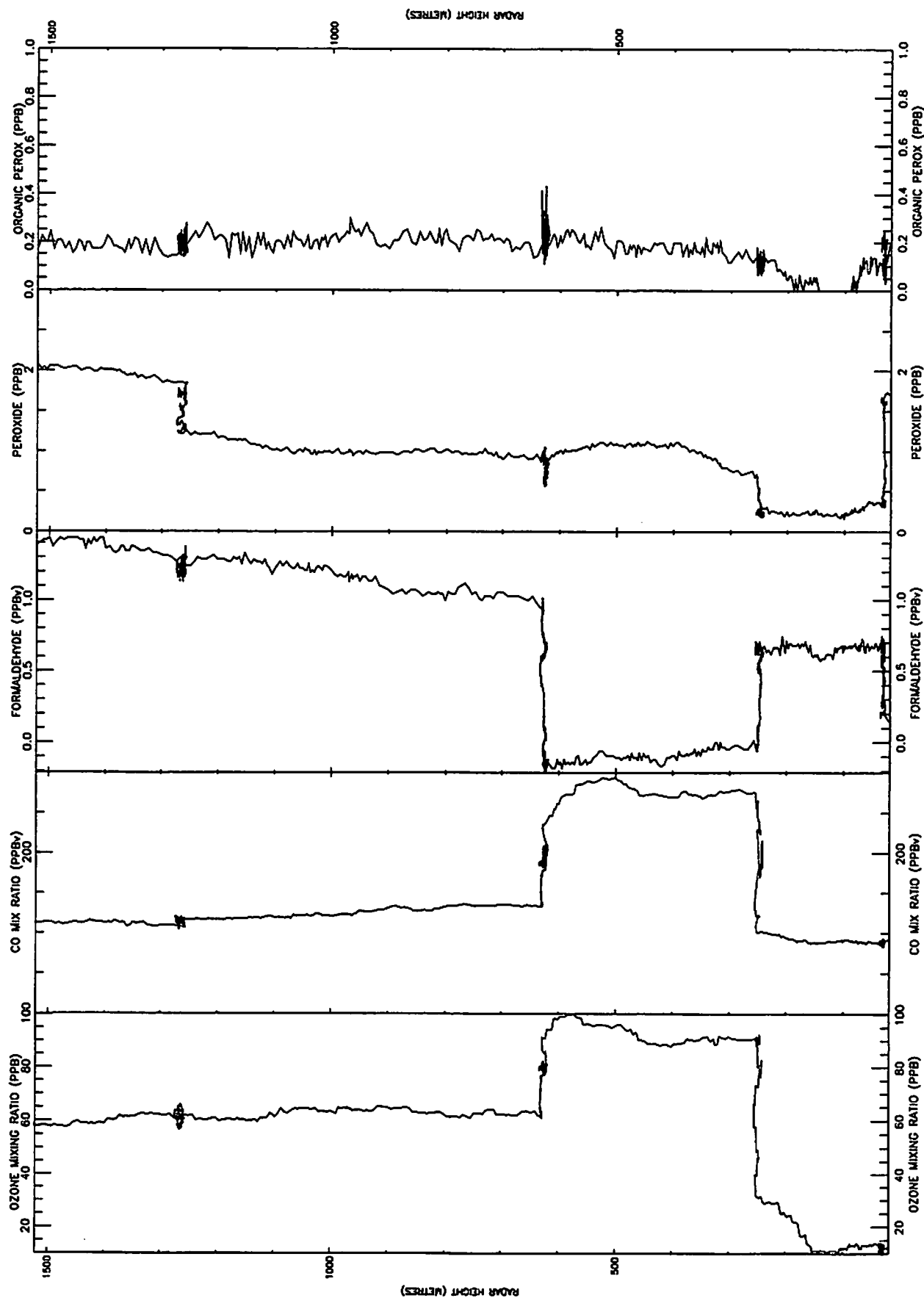
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



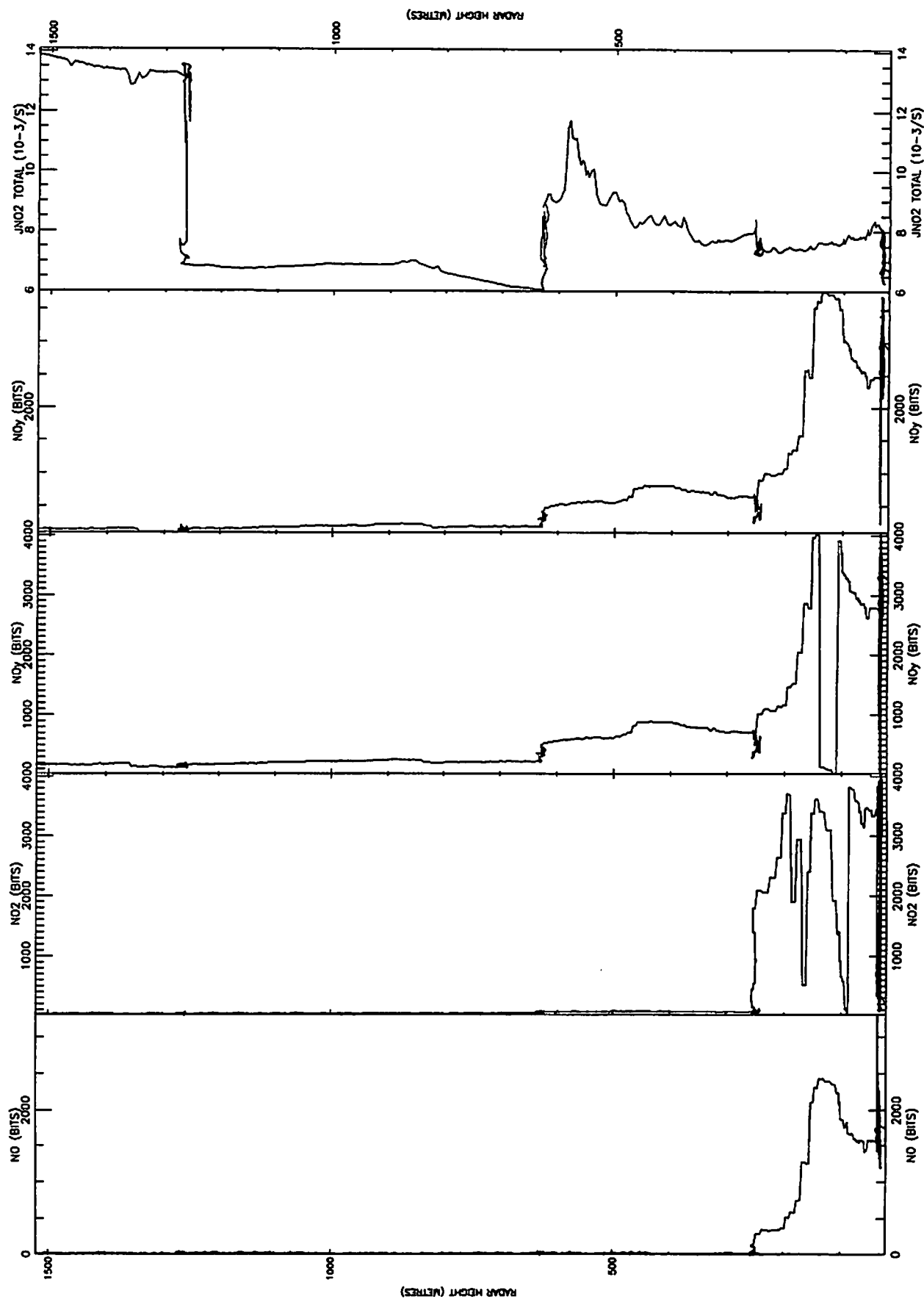
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



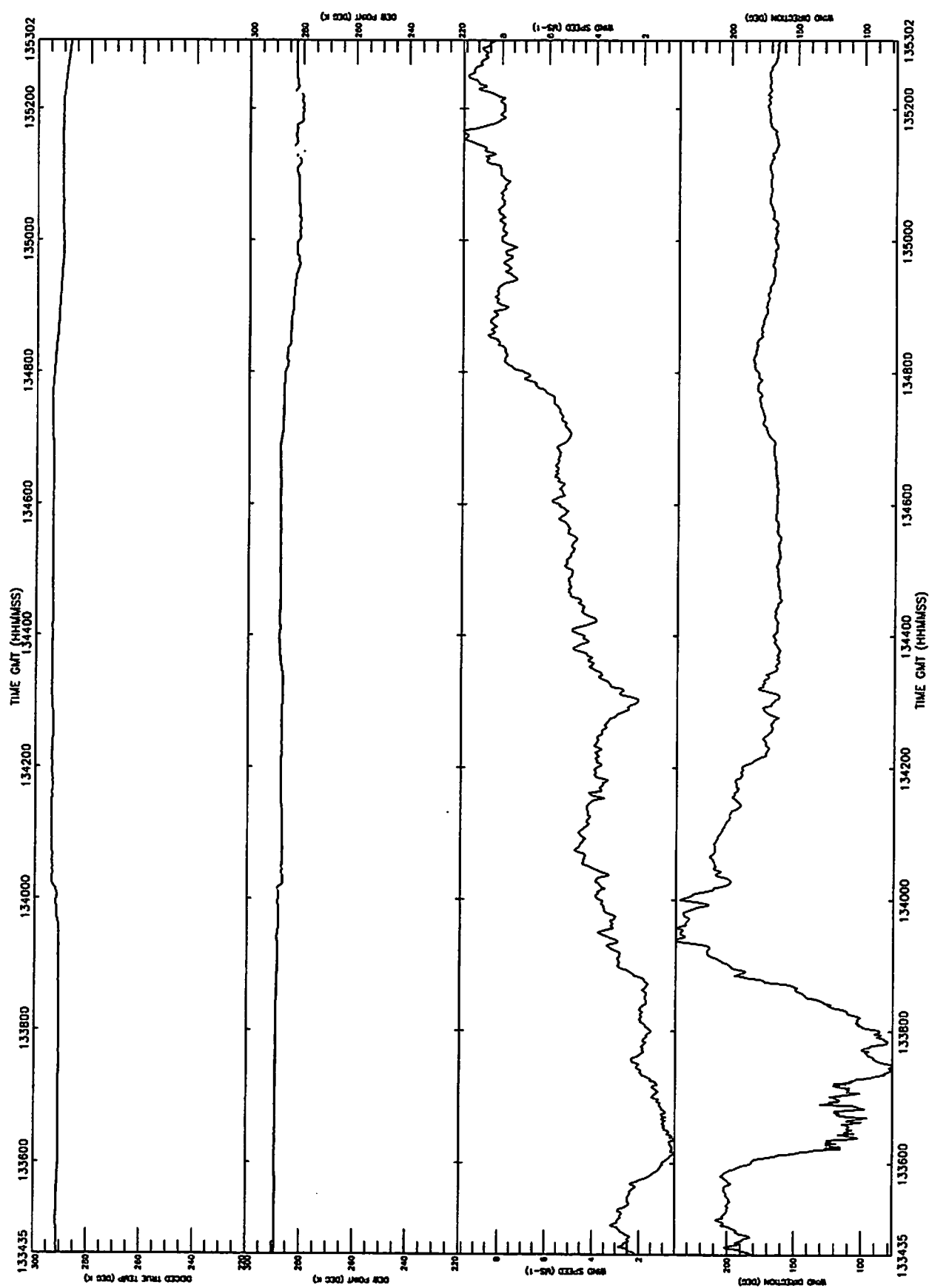
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



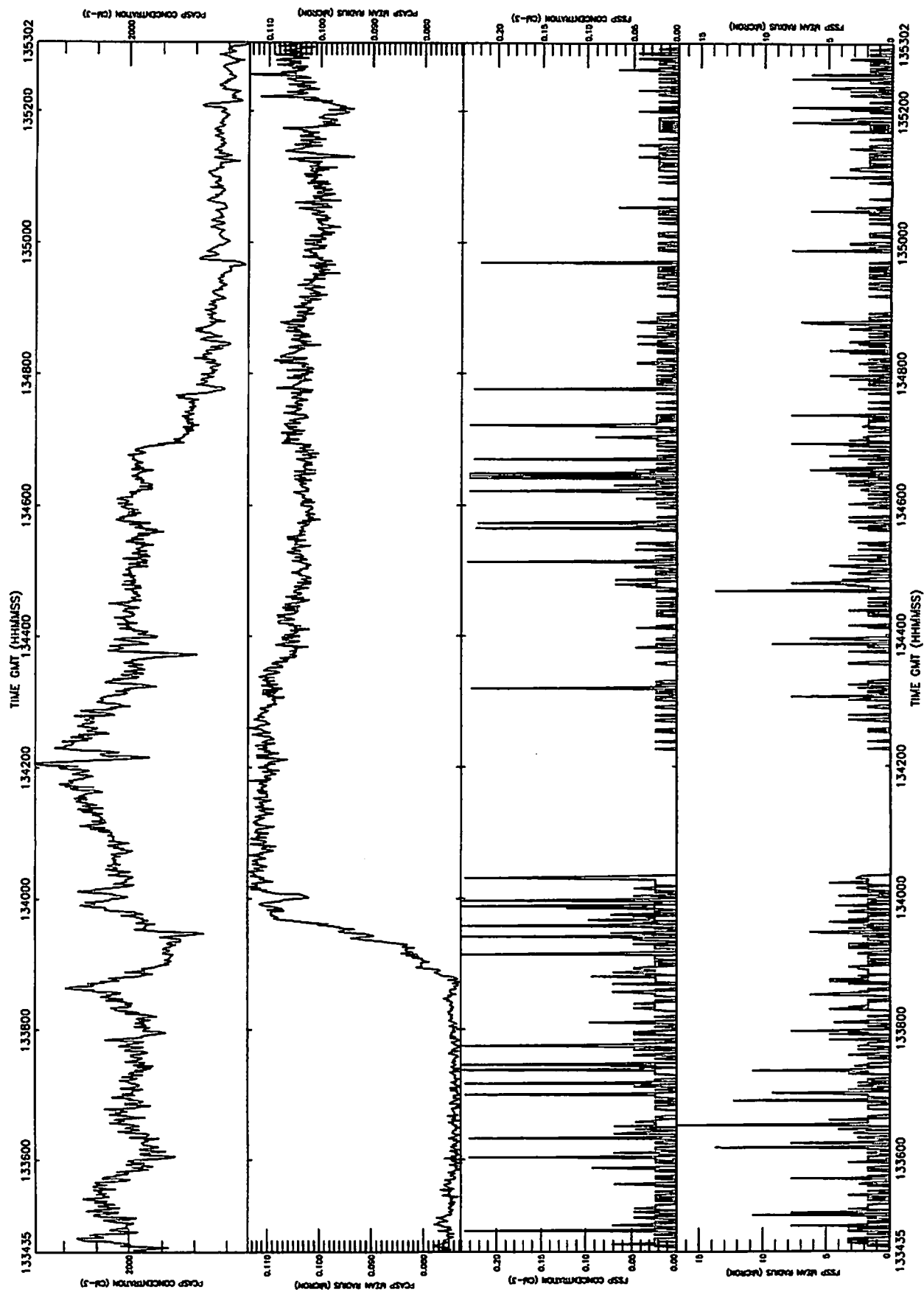
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



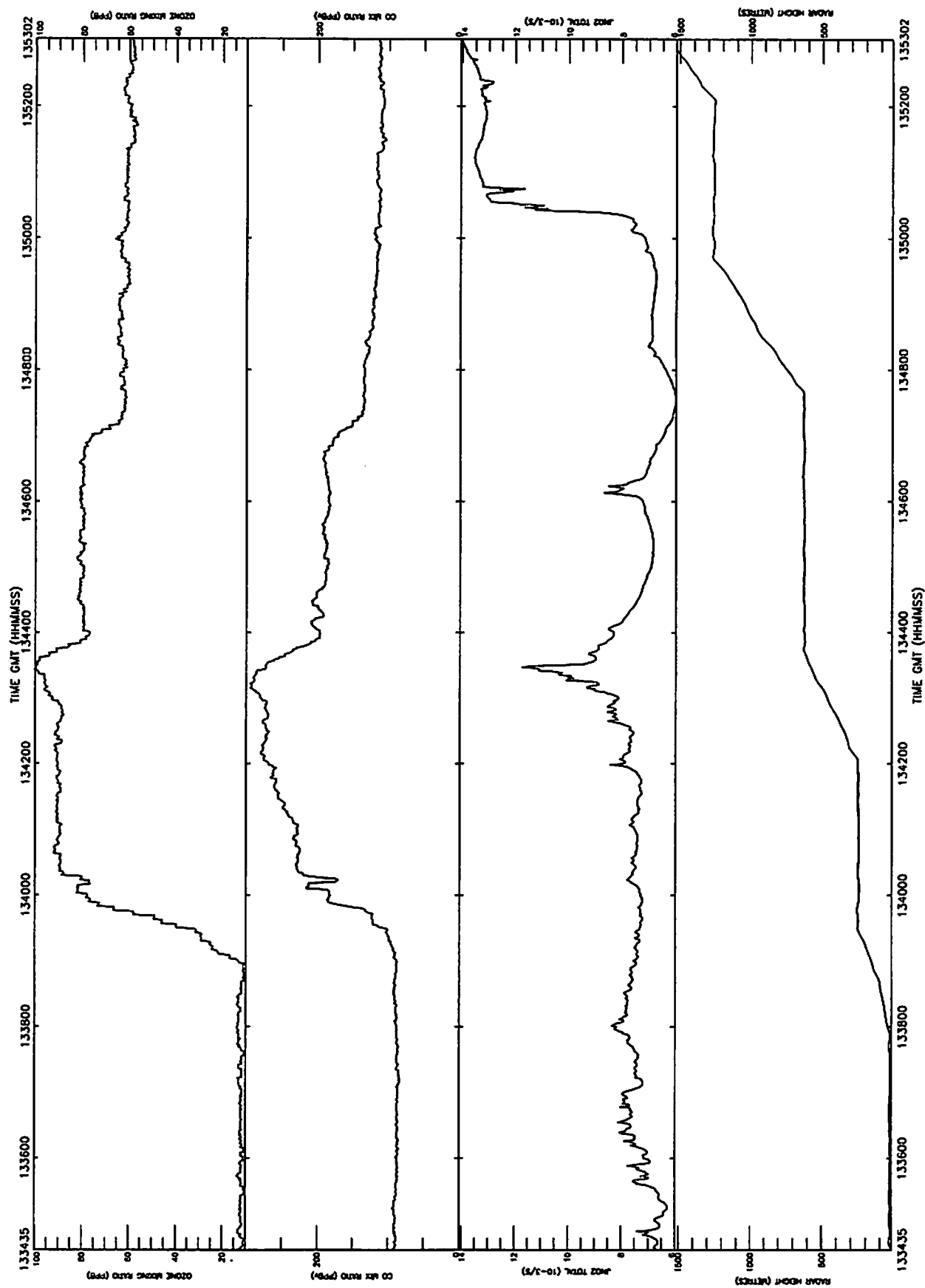
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



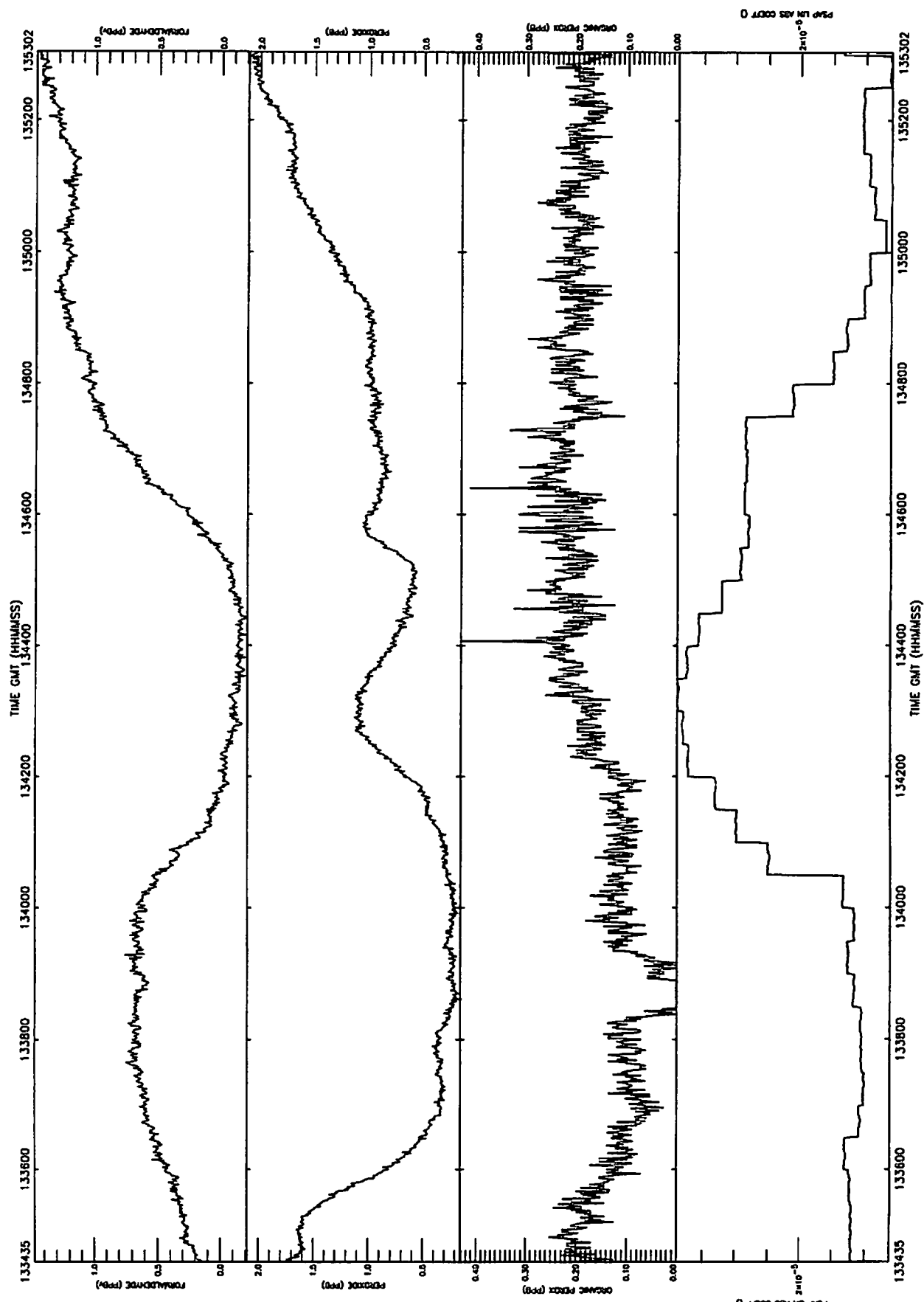
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



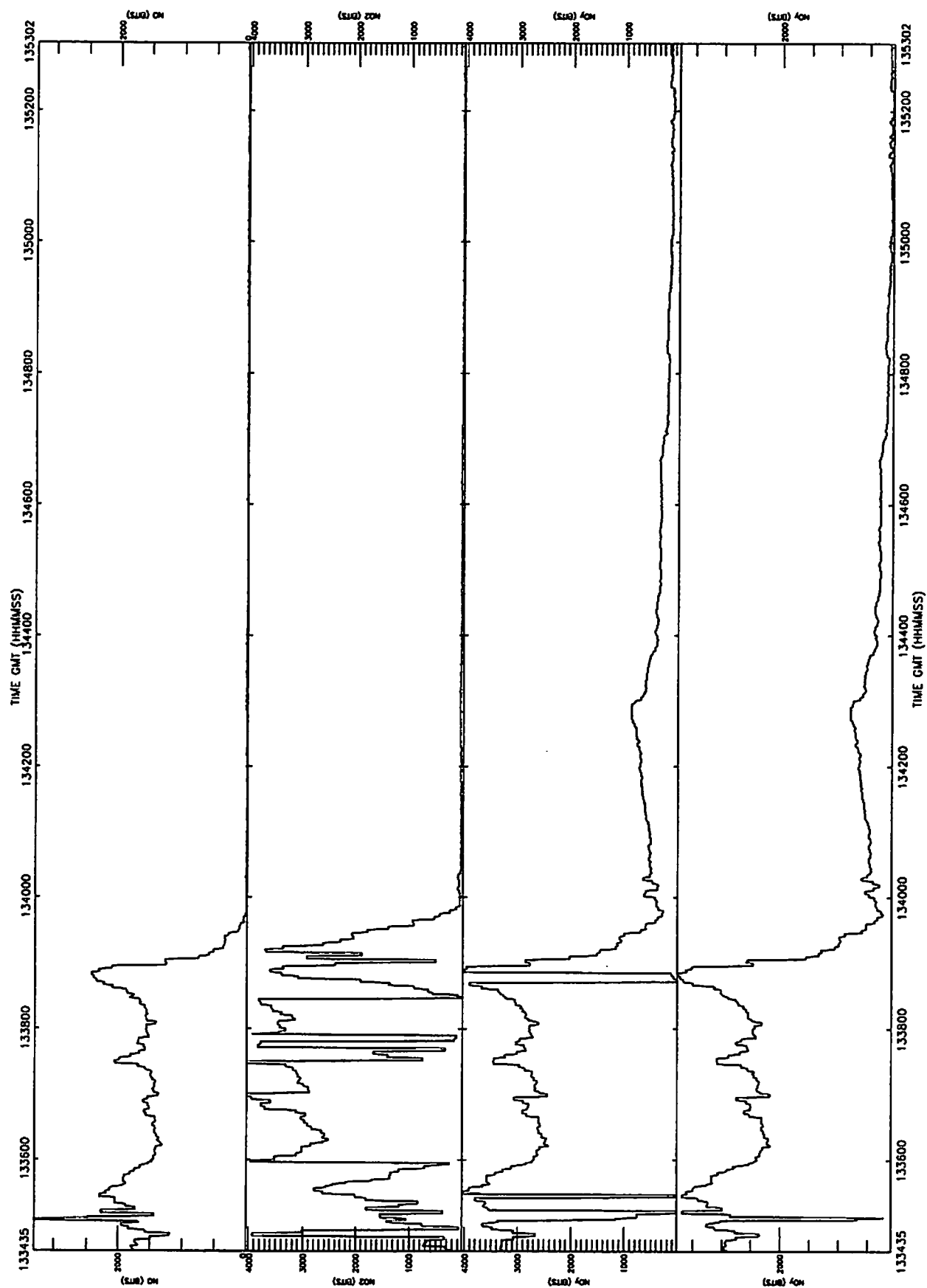
A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59



A572 19-AUG-97 R2-R5,P2-P5 50'-5000' From 133435-135302 Plotted 9-Dec-1997 15:59

STATIC PRESSURE (MB)

No of obs 1108
Mean 956.515
Standard dev 49.4957
Max value 1017.10
Min value 849.584

DEICED TRUE TEMP (DEG K)

No of obs 1108
Mean 292.008
Standard dev 1.60889
Max value 294.193
Min value 287.408

DEW POINT (DEG K)

No of obs 1108
Mean 286.533
Standard dev 2.70145
Max value 289.304
Min value 279.773

OZONE MIXING RATIO (PPB)

No of obs 1108
Mean 57.8903
Standard dev 29.1924
Max value 100.223
Min value 10.0829

PCASP CONCENTRATION (CM-3)

No of obs 1108
Mean 1614.69
Standard dev 730.810
Max value 3441.87
Min value 183.477

FSSP CONCENTRATION (CM-3)

No of obs 1108
Mean 1.570892e-02
Standard dev 3.778436e-02
Max value 0.240759
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1108
Mean 566.601
Standard dev 454.391
Max value 1522.15
Min value 19.7202

CORRECTED LATITUDE (DEGREES)

No of obs 1108
Mean 50.0081
Standard dev 6.605003e-03
Max value 50.0179
Min value 49.9992

CORRECTED LONGITUDE (DEGREES)

No of obs 1108
Mean -1.92689
Standard dev 0.428801
Max value -1.17470
Min value -2.66247

NORTHWARD WIND COMPT (M S-1)

No of obs 1108
Mean 4.49864
Standard dev 2.69071
Max value 9.36679
Min value -0.479942

EASTWARD WIND COMPT (M S-1)

No of obs 1108
Mean -0.487506
Standard dev 1.29723
Max value 3.15047
Min value -2.36557

VERTICAL WIND COMPT (M S-1)

No of obs 1108
Mean -0.216372
Standard dev 0.355274
Max value 0.933105
Min value -0.913910

WIND SPEED (MS-1)

No of obs 1108
Mean 4.83509
Standard dev 2.45303
Max value 9.62238
Min value 0.507478

WIND DIRECTION (DEG)

Mean 173.815

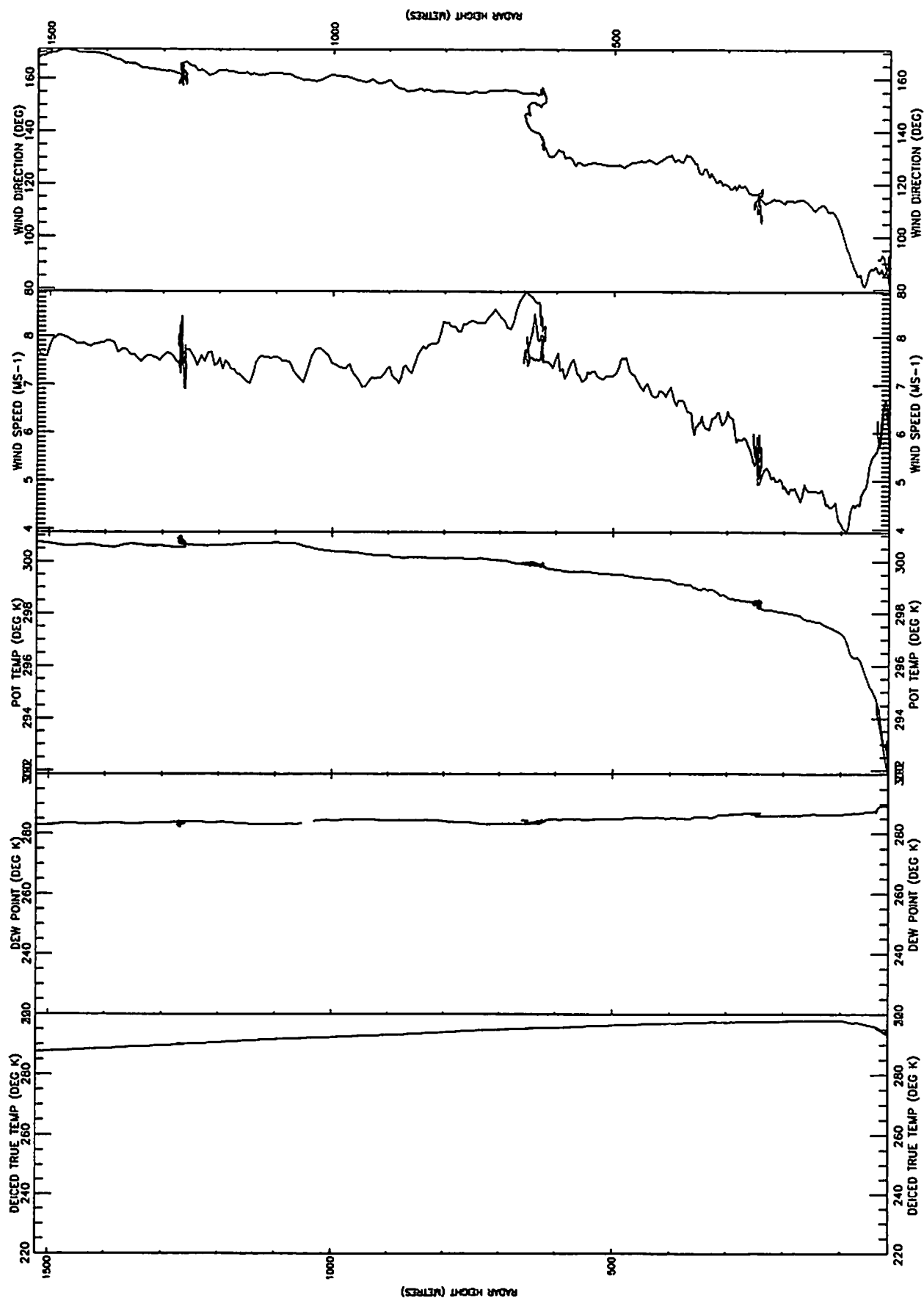
TRUE AIR SPEED (M S-1)

No of obs 1108
Mean 96.9211
Standard dev 3.10778
Max value 103.191
Min value 91.2550

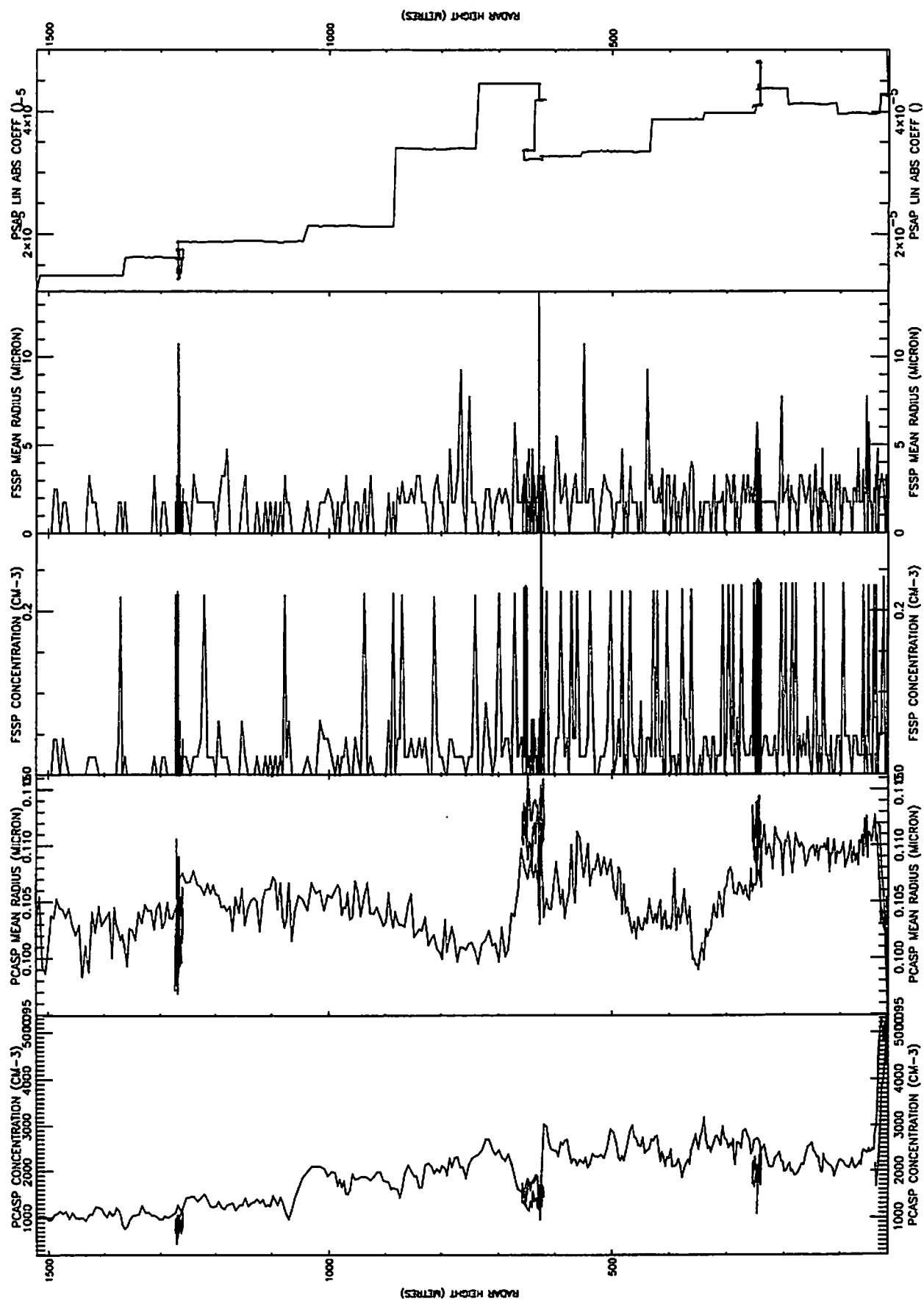
HEADING (DEG)

Mean 90.9414

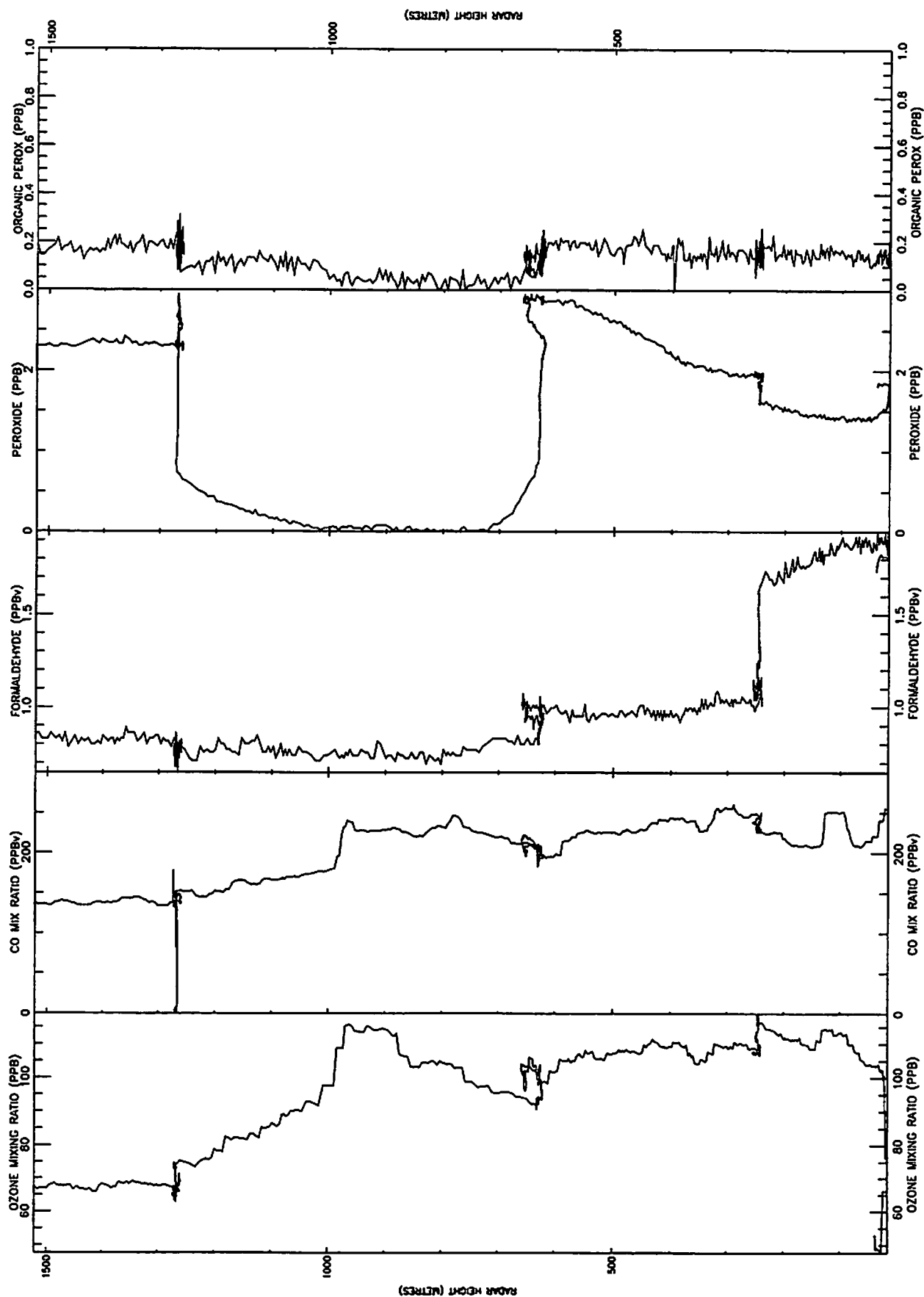
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



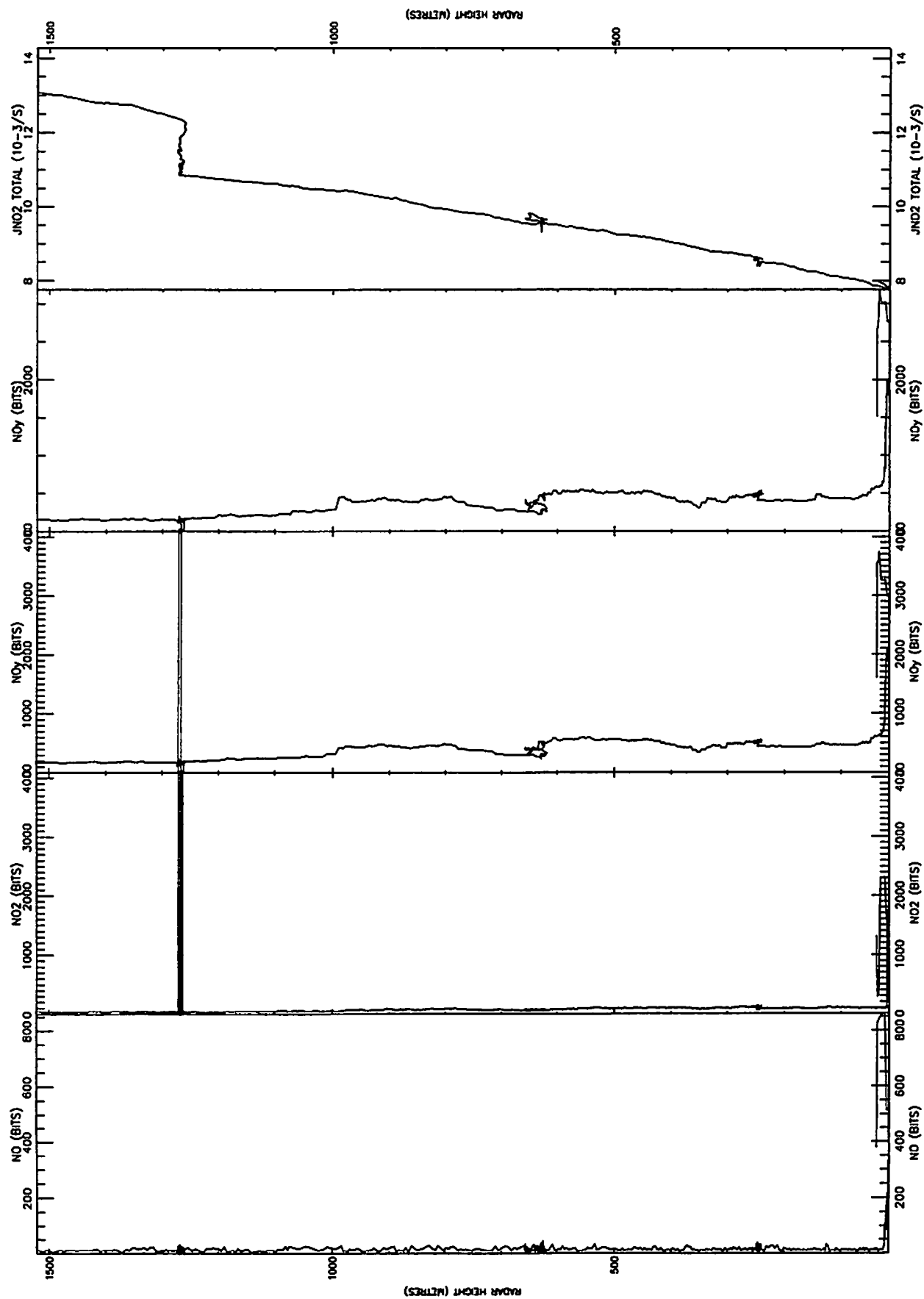
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



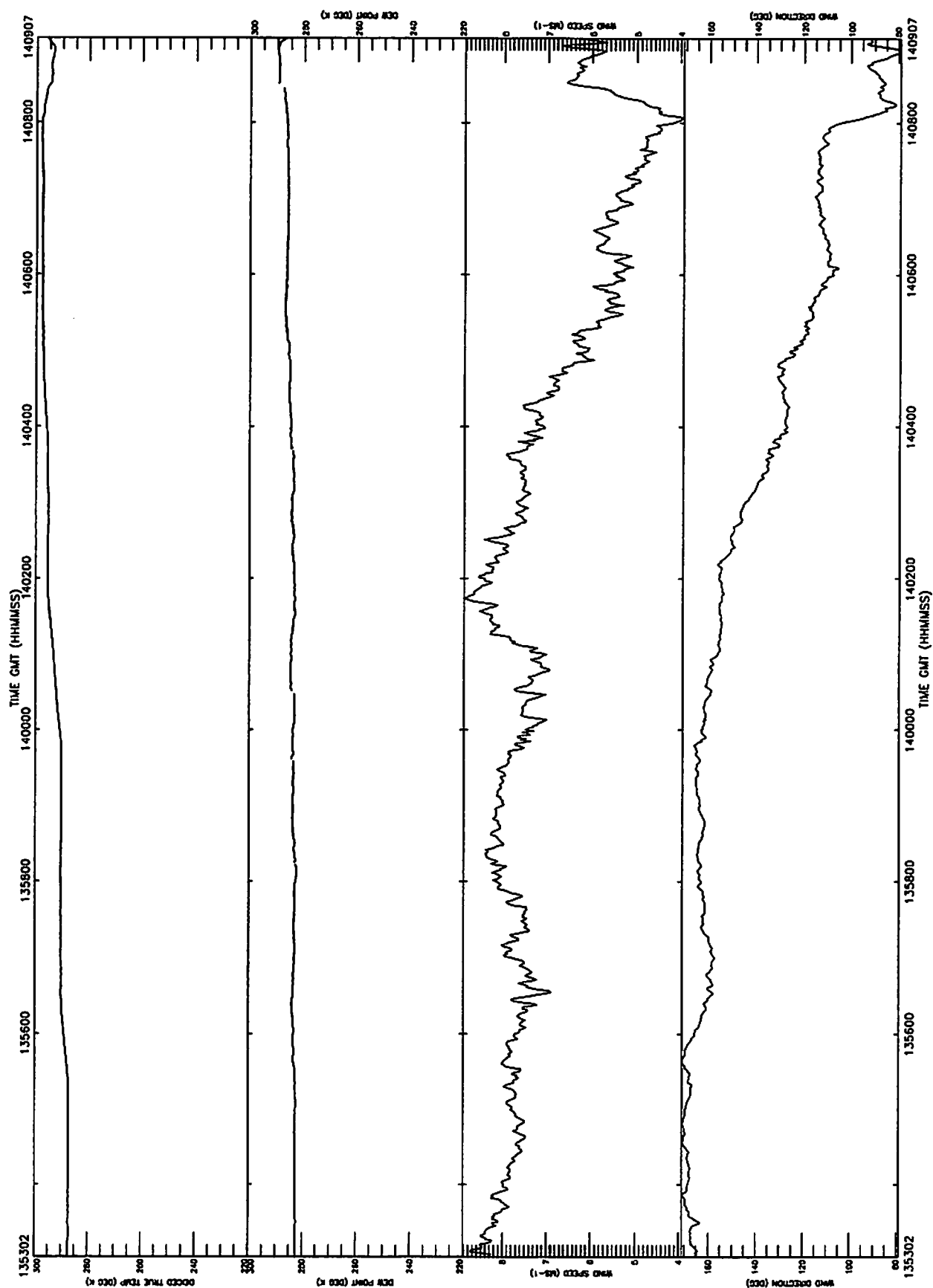
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



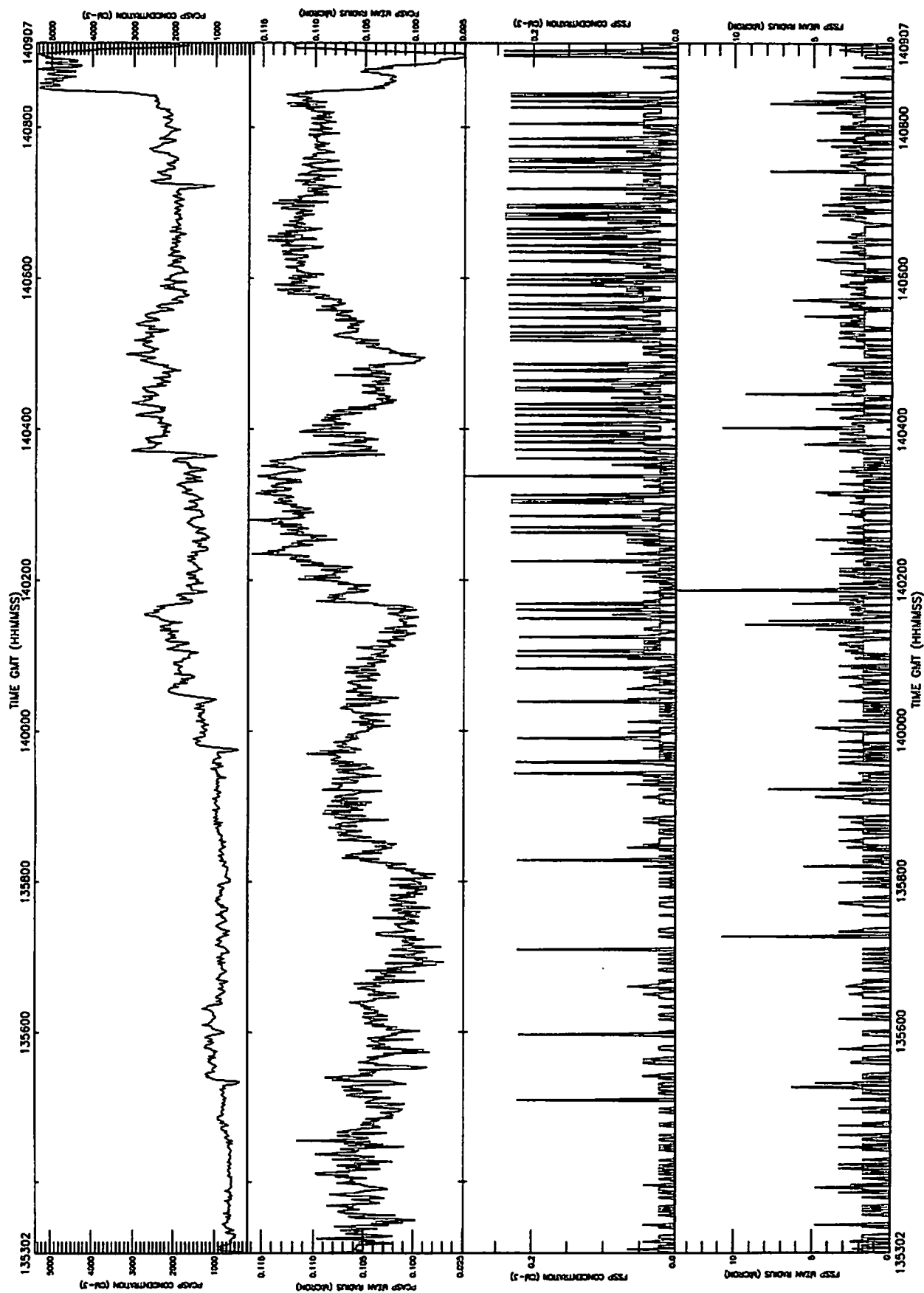
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 *Plotted* 9-Dec-1997 16:04



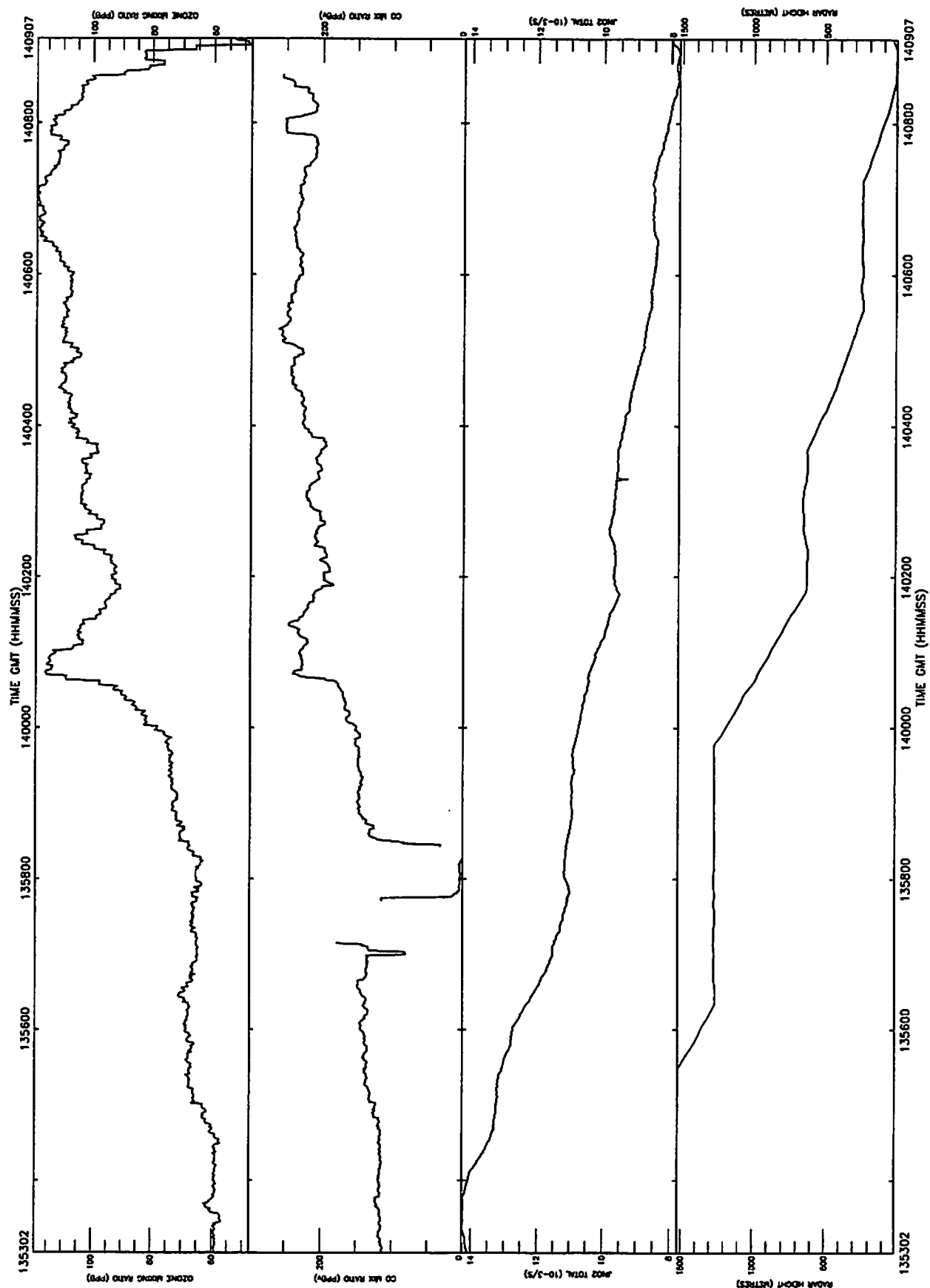
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



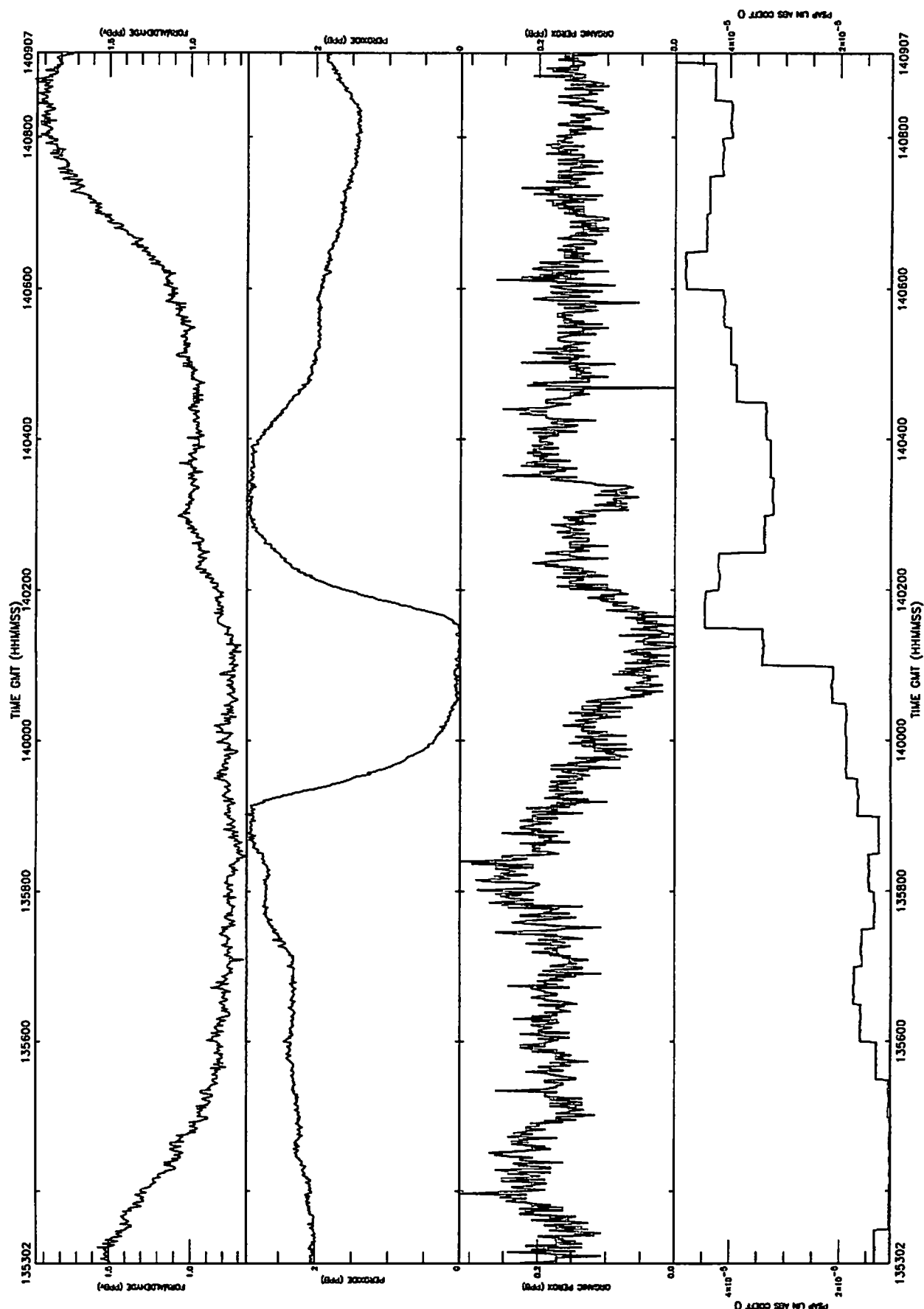
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



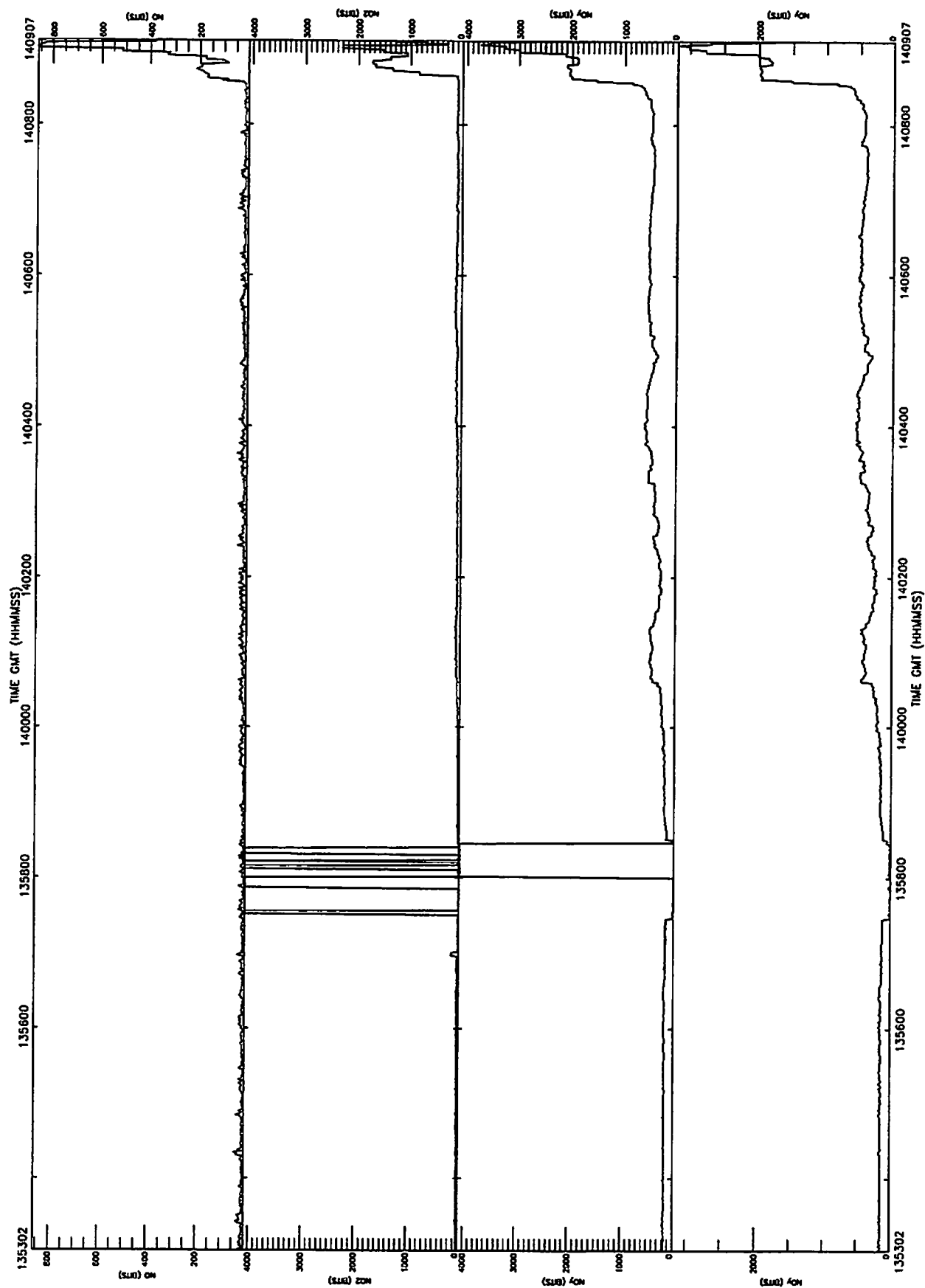
A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:04



A572 19-AUG-97 R6-R9,P6-P9 5000'-50' From 135302-140907 Plotted 9-Dec-1997 16:05

STATIC PRESSURE (MB)

No of obs 966
Mean 924.854
Standard dev 55.9644
Max value 1017.57
Min value 848.308

DEICED TRUE TEMP (DEG K)

No of obs 966
Mean 292.860
Standard dev 3.78070
Max value 297.977
Min value 287.186

DEW POINT (DEG K)

No of obs 966
Mean 284.405
Standard dev 1.67581
Max value 289.794
Min value 282.264

OZONE MIXING RATIO (PPB)

No of obs 966
Mean 87.2433
Standard dev 20.6905
Max value 118.967
Min value 47.7404

PCASP CONCENTRATION (CM-3)

No of obs 966
Mean 1581.07
Standard dev 905.229
Max value 5357.53
Min value 183.477

FSSP CONCENTRATION (CM-3)

No of obs 966
Mean 3.347080e-02
Standard dev 6.032841e-02
Max value 0.295321
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 966
Mean 855.738
Standard dev 511.433
Max value 1522.15
Min value 16.0032

CORRECTED LATITUDE (DEGREES)

No of obs 966
Mean 50.0416
Standard dev 6.210078e-02
Max value 50.2044
Min value 49.9978

CORRECTED LONGITUDE (DEGREES)

No of obs 966
Mean -0.536243
Standard dev 0.348945
Max value 9.575360e-03
Min value -1.17470

NORTHWARD WIND COMPT (M S-1)

No of obs 966
Mean 5.59215
Standard dev 2.63696
Max value 8.42406
Min value -1.08250

EASTWARD WIND COMPT (M S-1)

No of obs 966
Mean -3.45735
Standard dev 1.52647
Max value -1.21659
Min value -6.67242

VERTICAL WIND COMPT (M S-1)

No of obs 966
Mean 0.309647
Standard dev 0.342046
Max value 1.08437
Min value -0.671059

WIND SPEED (MS-1)

No of obs 966
Mean 7.16063
Standard dev 1.10733
Max value 8.92809
Min value 3.93241

WIND DIRECTION (DEG)

Mean 148.274

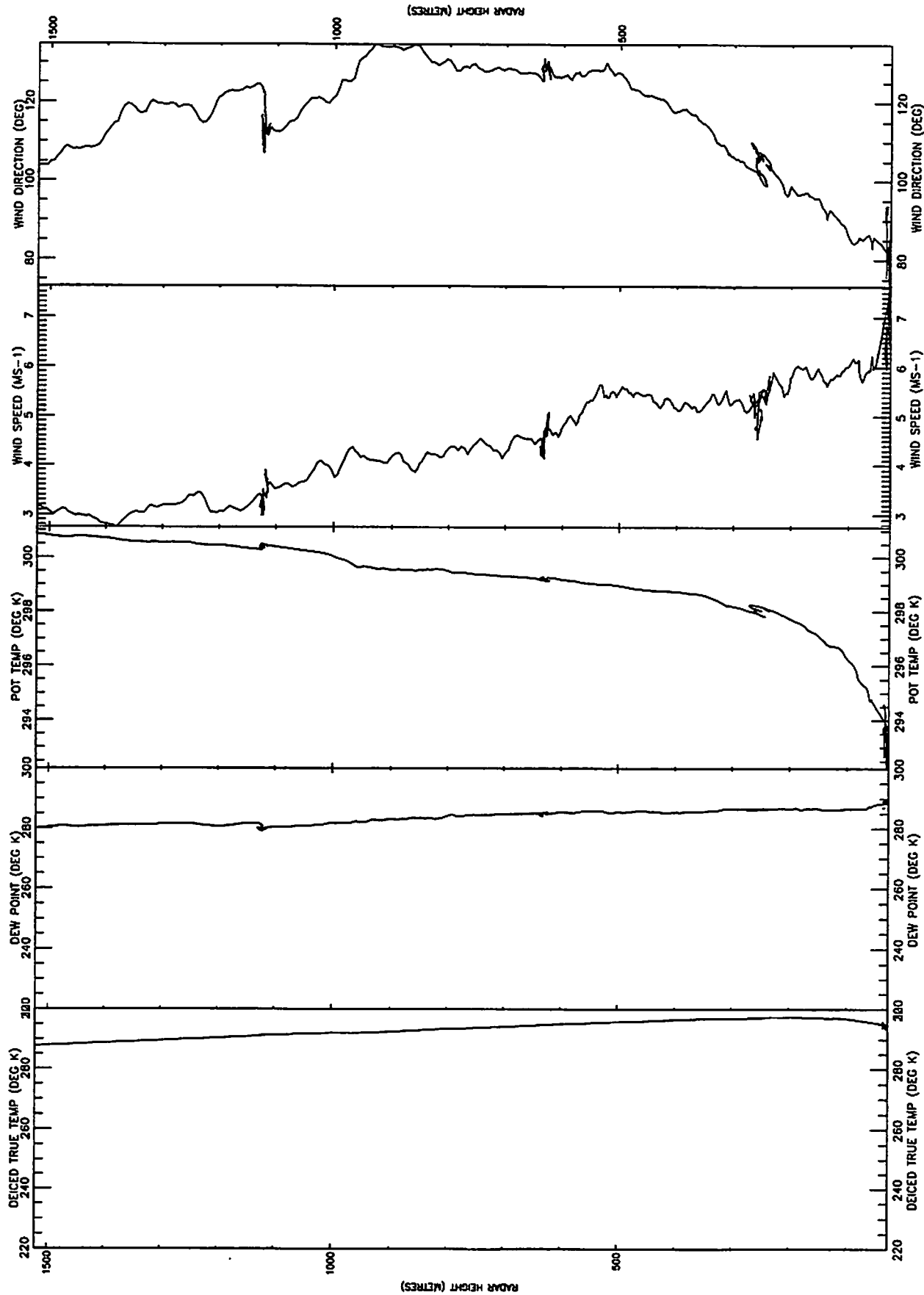
TRUE AIR SPEED (M S-1)

No of obs 966
Mean 98.6045
Standard dev 3.07869
Max value 103.675
Min value 88.4334

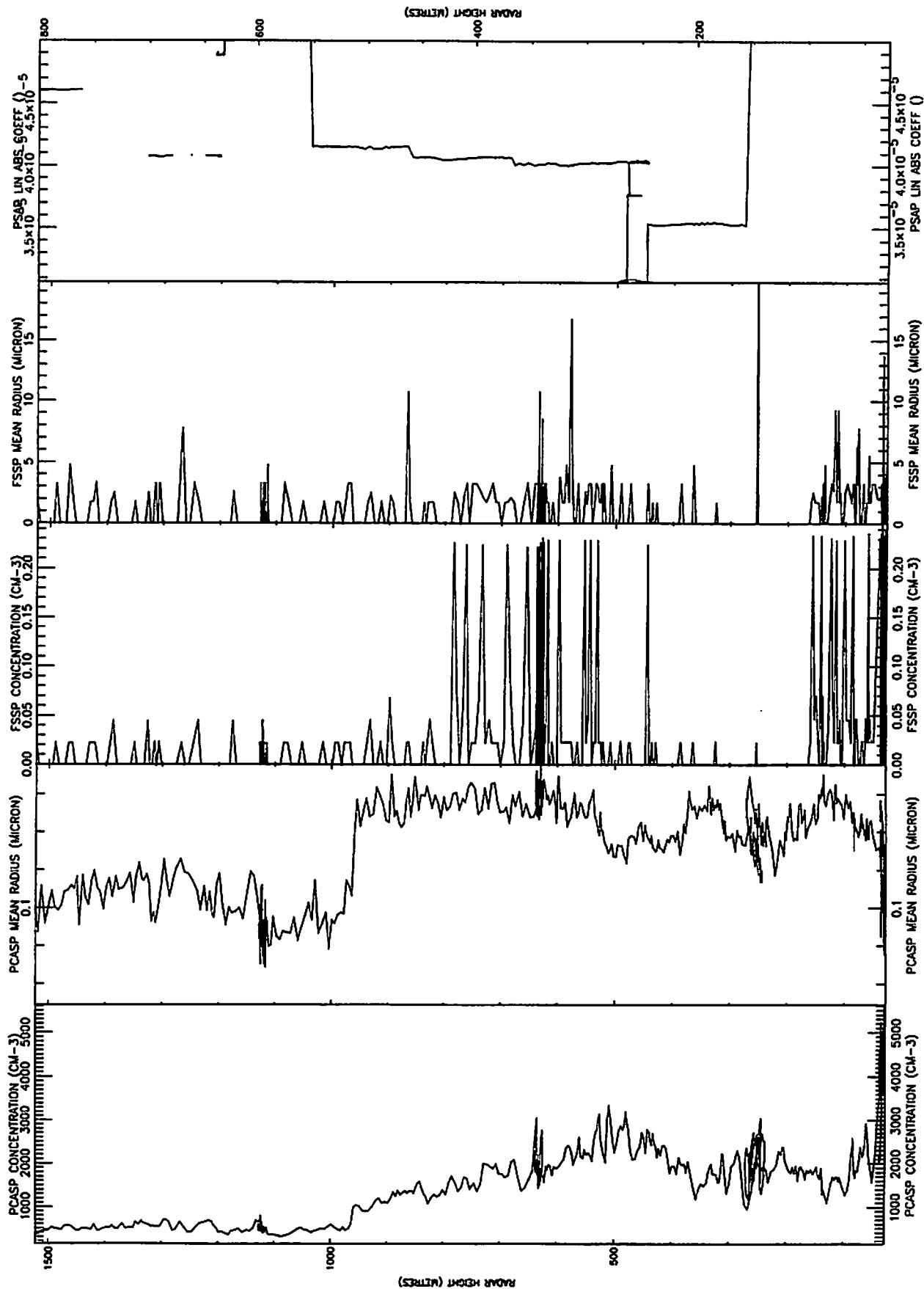
HEADING (DEG)

Mean 74.9477

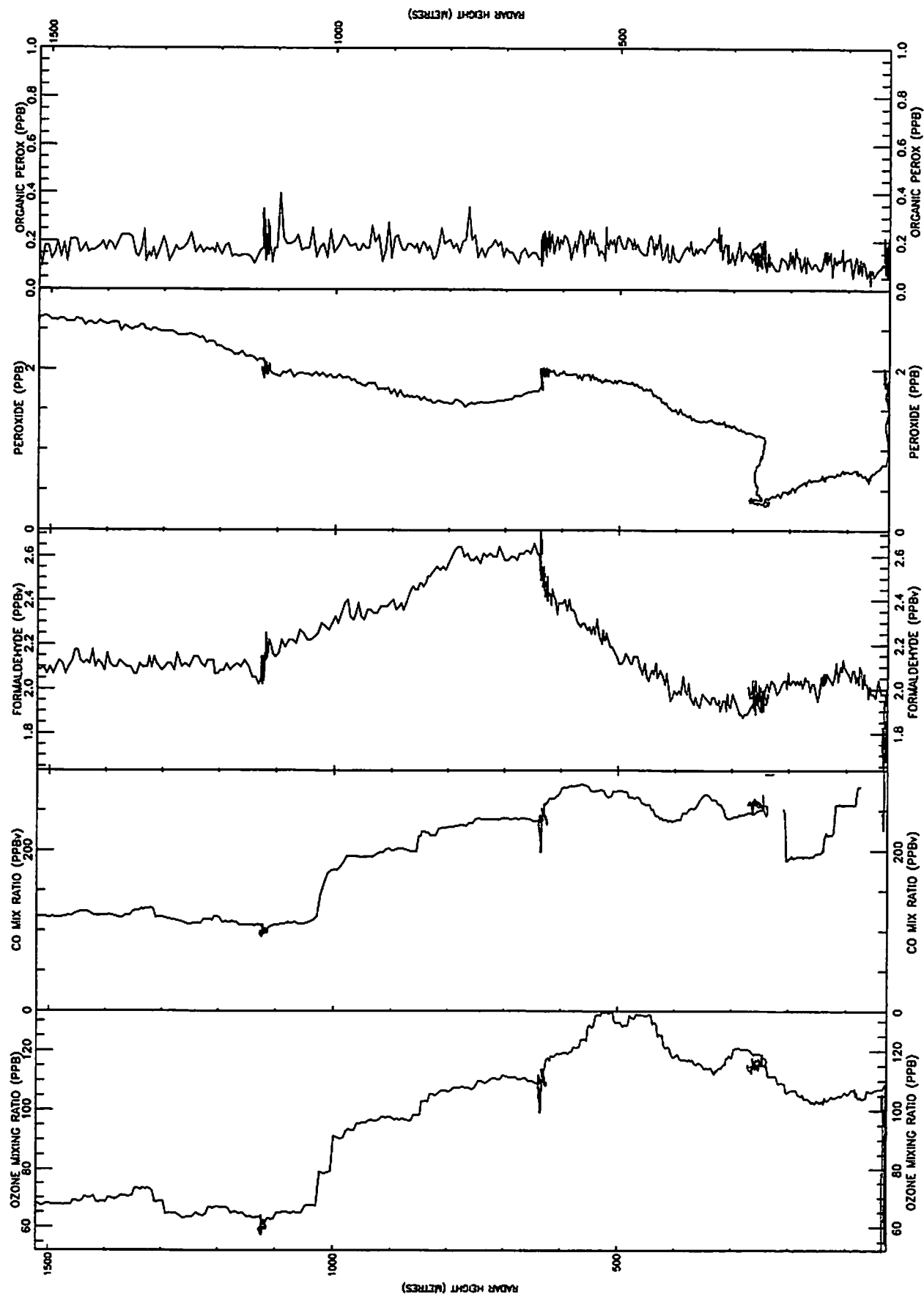
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:09



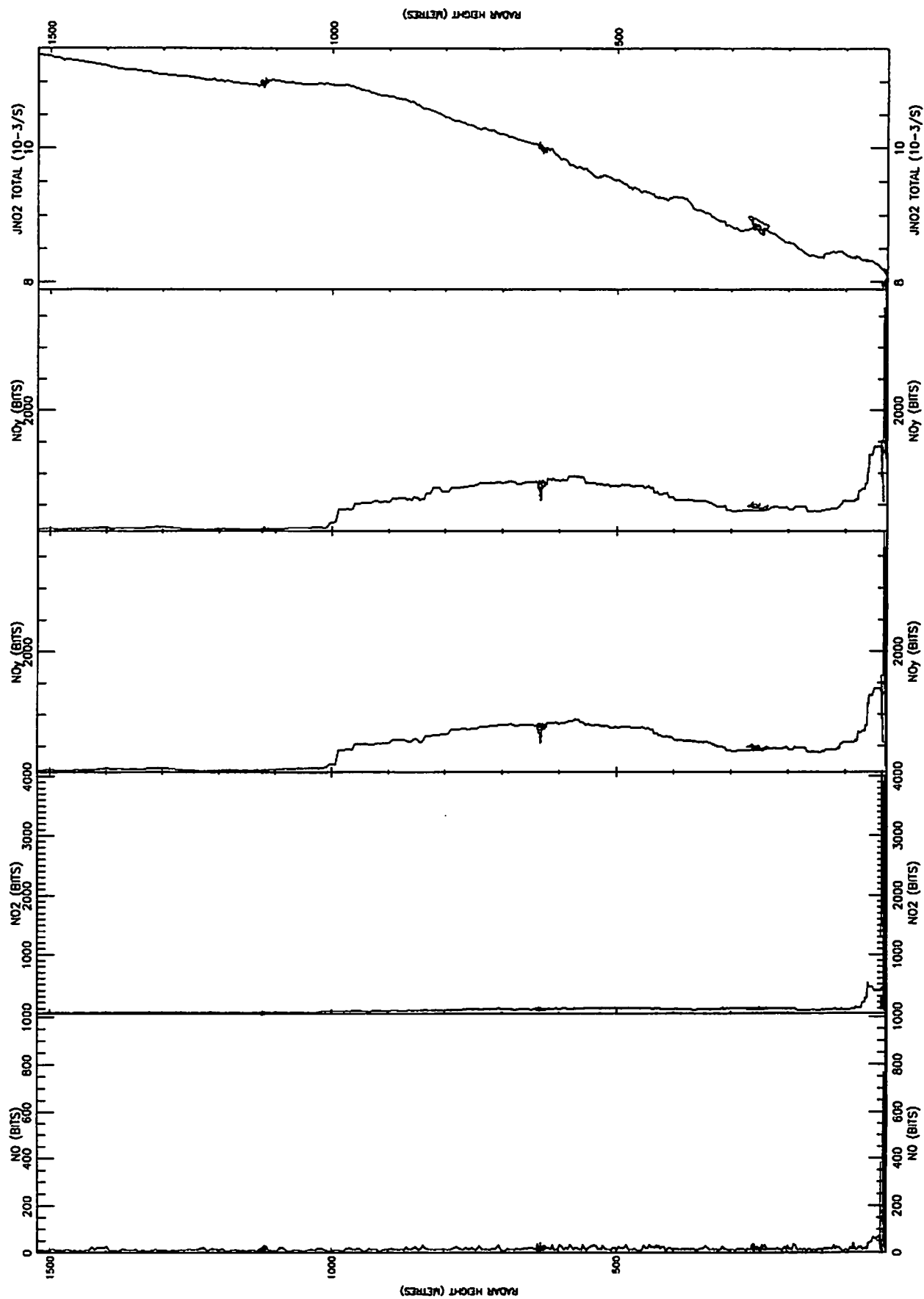
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:09



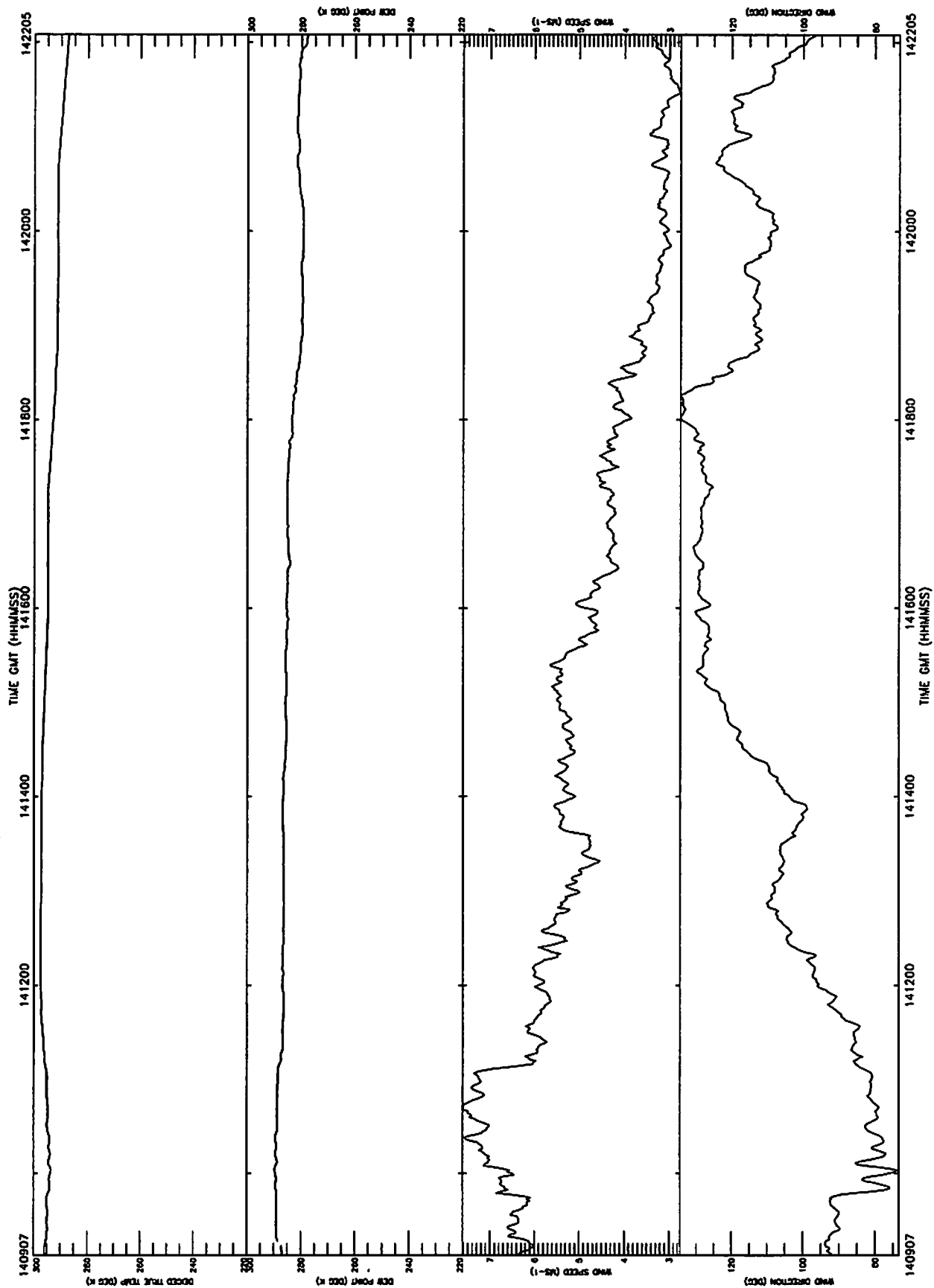
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:09



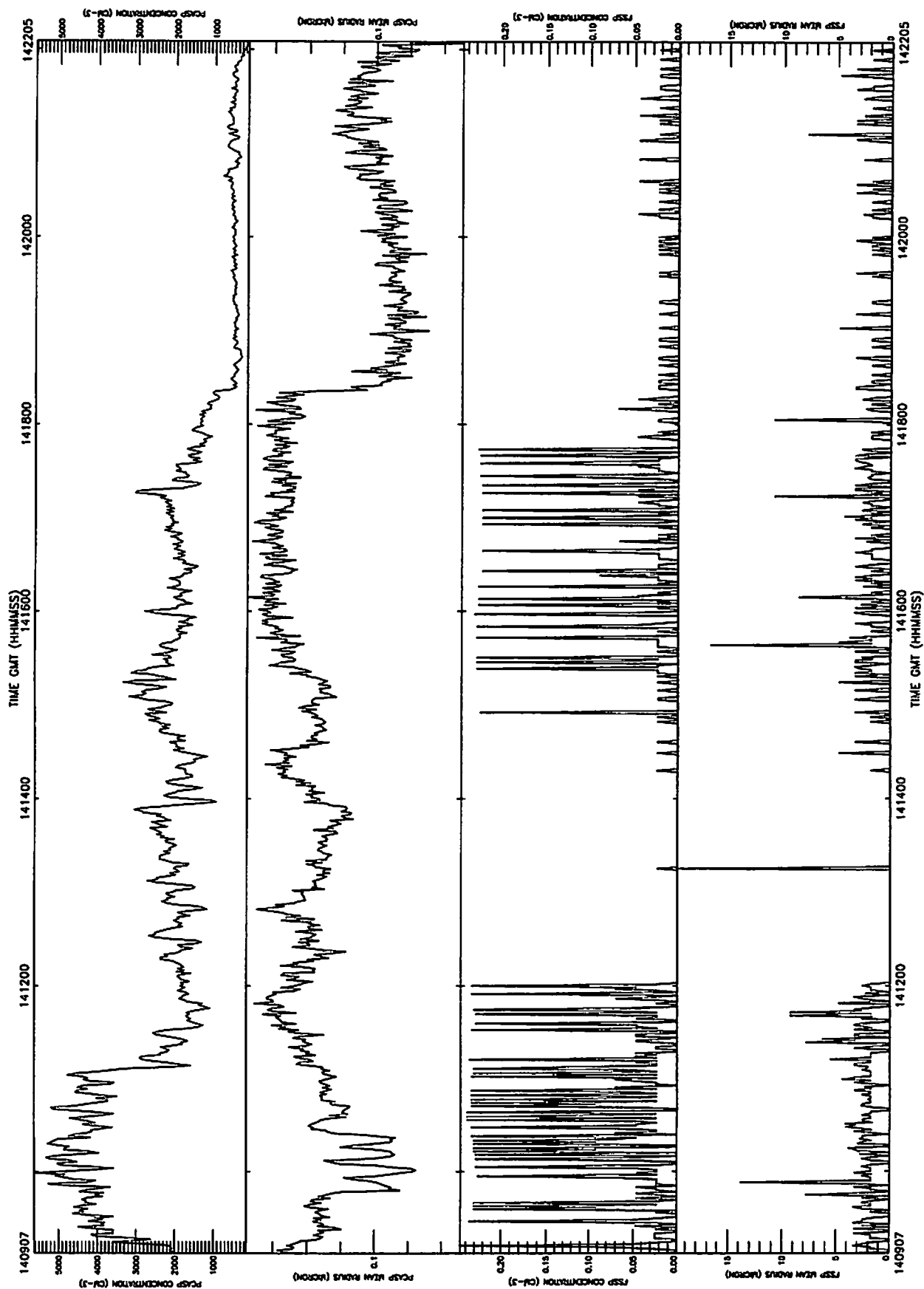
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:09



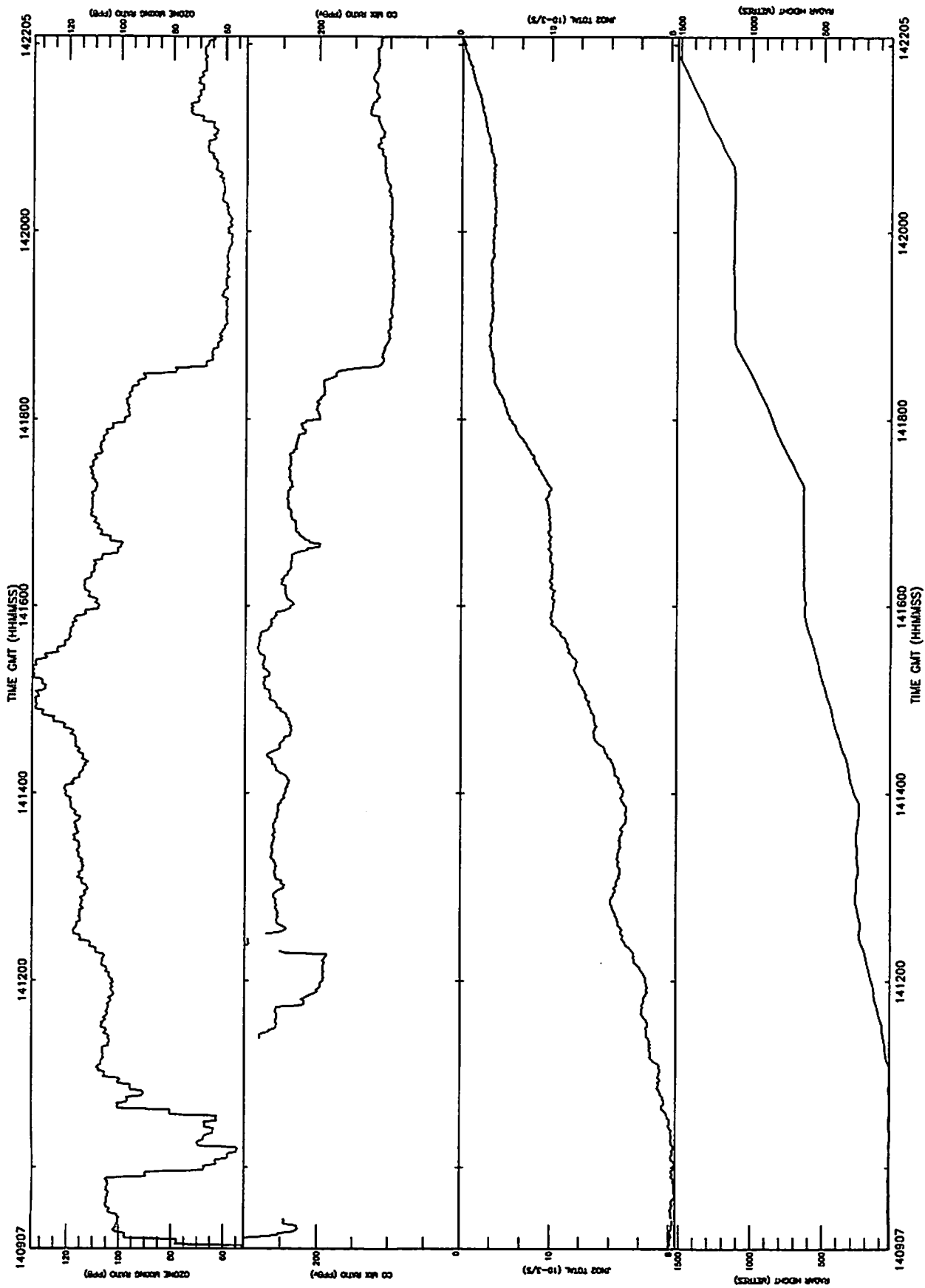
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:09



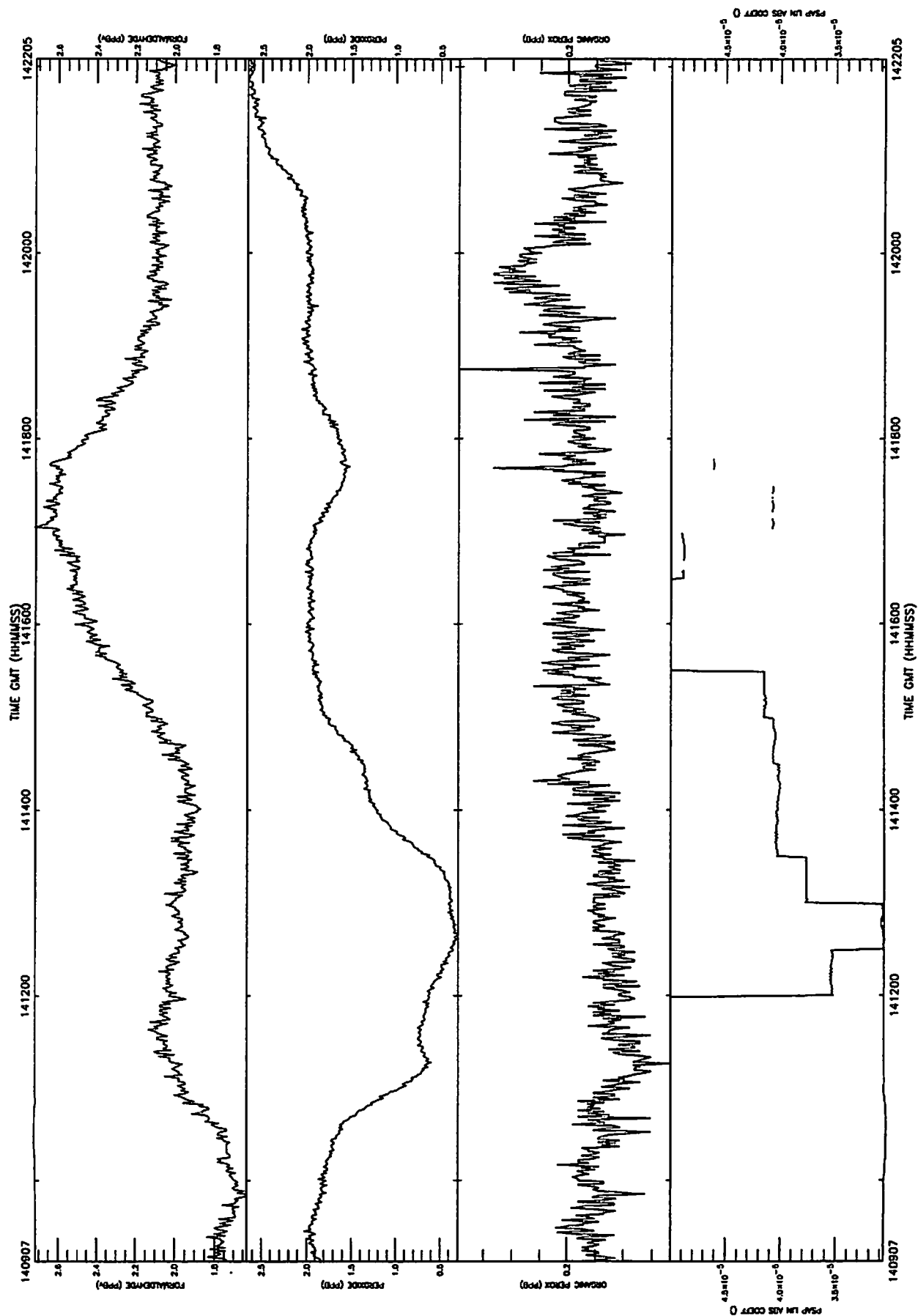
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:10



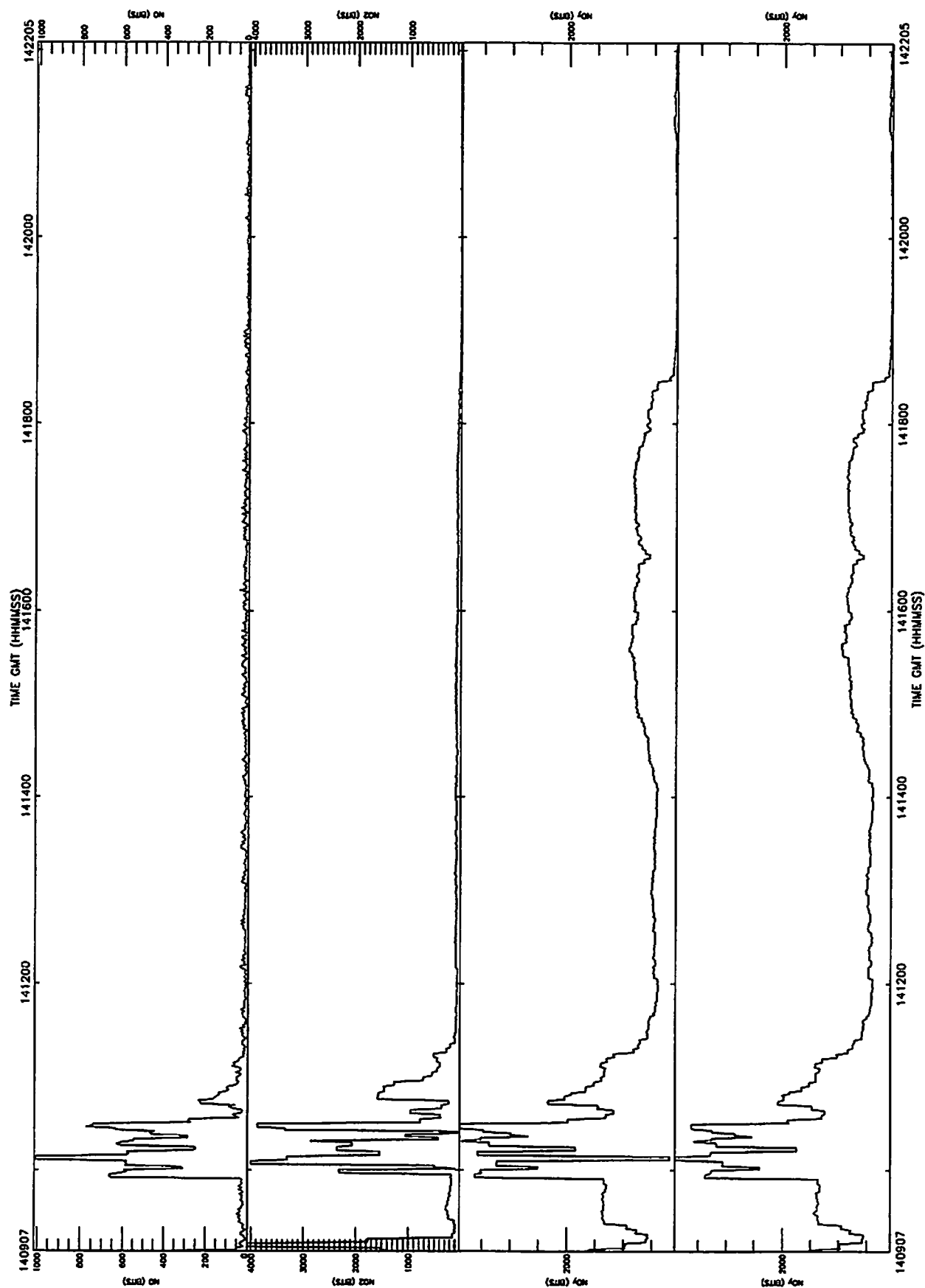
A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:10



A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:10



A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:10



A572 19-AUG-97 R10-R13,P19-P13 100'-5000' From 140907-142205 Plotted 9-Dec-1997 16:10

STATIC PRESSURE (MB)

No of obs 779
Mean 953.785
Standard dev 49.1261
Max value 1016.08
Min value 849.194

DEICED TRUE TEMP (DEG K)

No of obs 779
Mean 294.109
Standard dev 2.65771
Max value 297.433
Min value 287.381

DEW POINT (DEG K)

No of obs 779
Mean 284.614
Standard dev 3.10168
Max value 289.626
Min value 277.844

OZONE MIXING RATIO (PPB)

No of obs 779
Mean 94.9751
Standard dev 23.6105
Max value 133.425
Min value 52.1127

PCASP CONCENTRATION (CM-3)

No of obs 779
Mean 1886.43
Standard dev 1248.42
Max value 5627.85
Min value 140.232

FSSP CONCENTRATION (CM-3)

No of obs 779
Mean 2.616568e-02
Standard dev 5.840692e-02
Max value 0.246101
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 779
Mean 593.583
Standard dev 452.819
Max value 1522.15
Min value 27.8977

CORRECTED LATITUDE (DEGREES)

No of obs 779
Mean 50.4202
Standard dev 0.129494
Max value 50.6514
Min value 50.2044

CORRECTED LONGITUDE (DEGREES)

No of obs 779
Mean 0.391168
Standard dev 0.224487
Max value 0.780770
Min value 9.575360e-03

NORTHWARD WIND COMPT (M S-1)

No of obs 779
Mean 1.34321
Standard dev 1.29716
Max value 3.48016
Min value -1.89194

EASTWARD WIND COMPT (M S-1)

No of obs 779
Mean -4.40301
Standard dev 1.42829
Max value -2.49267
Min value -7.48518

VERTICAL WIND COMPT (M S-1)

No of obs 779
Mean -0.329409
Standard dev 0.320045
Max value 0.451515
Min value -0.864845

WIND SPEED (MS-1)

No of obs 779
Mean 4.82508
Standard dev 1.27642
Max value 7.61979
Min value 2.74874

WIND DIRECTION (DEG)

Mean 106.965

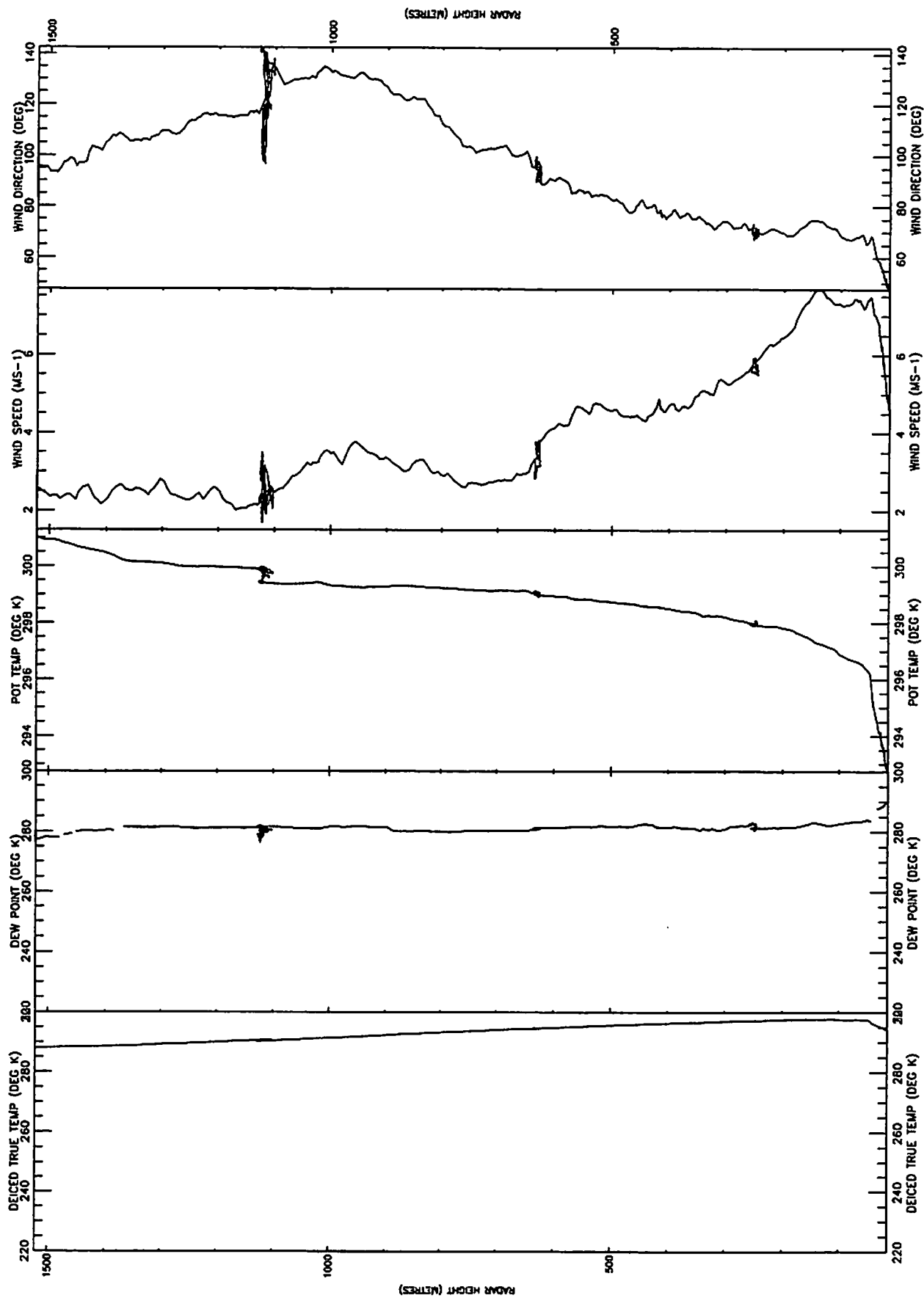
TRUE AIR SPEED (M S-1)

No of obs 779
Mean 97.3312
Standard dev 2.33846
Max value 101.355
Min value 89.4176

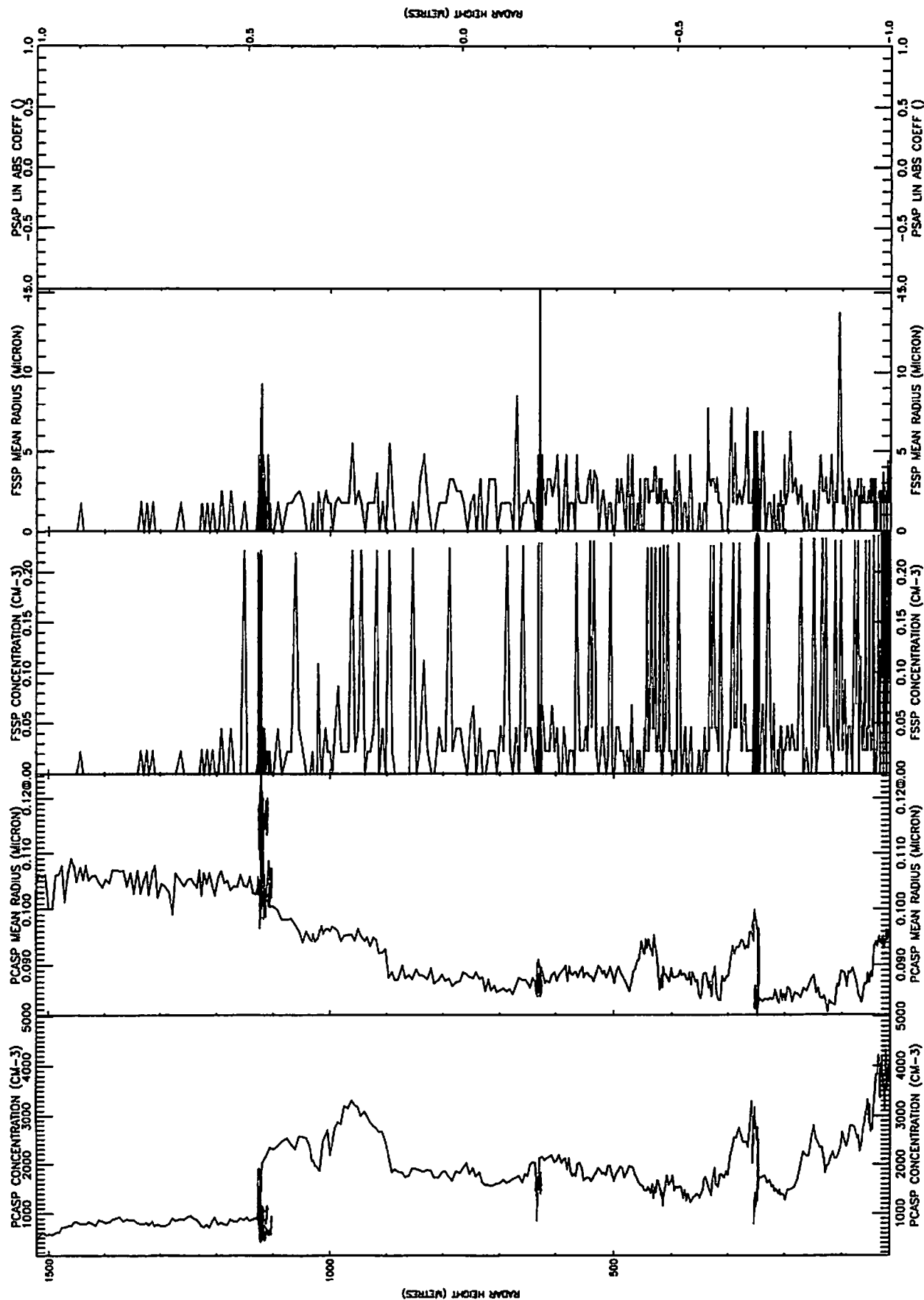
HEADING (DEG)

Mean 47.7876

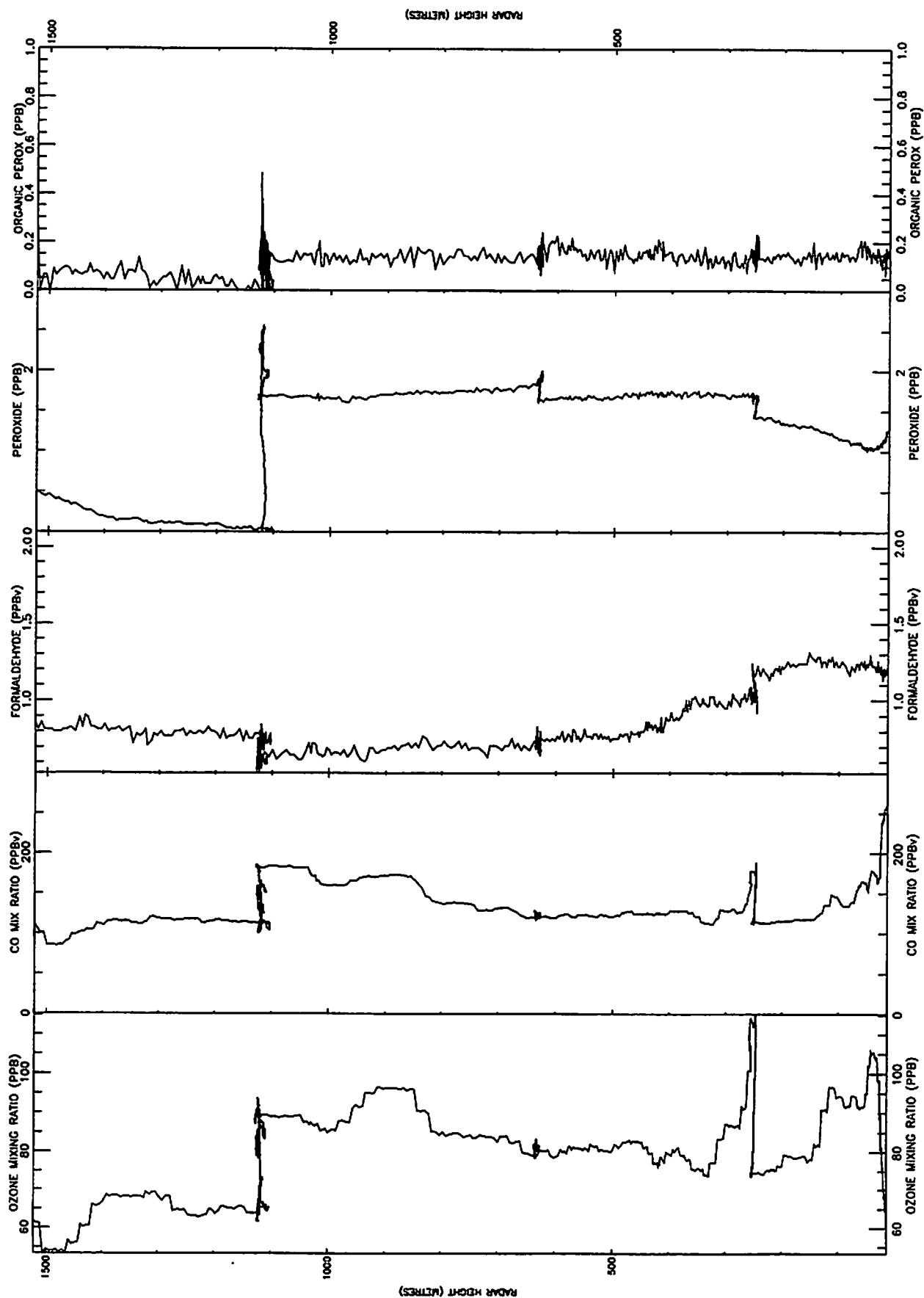
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:15



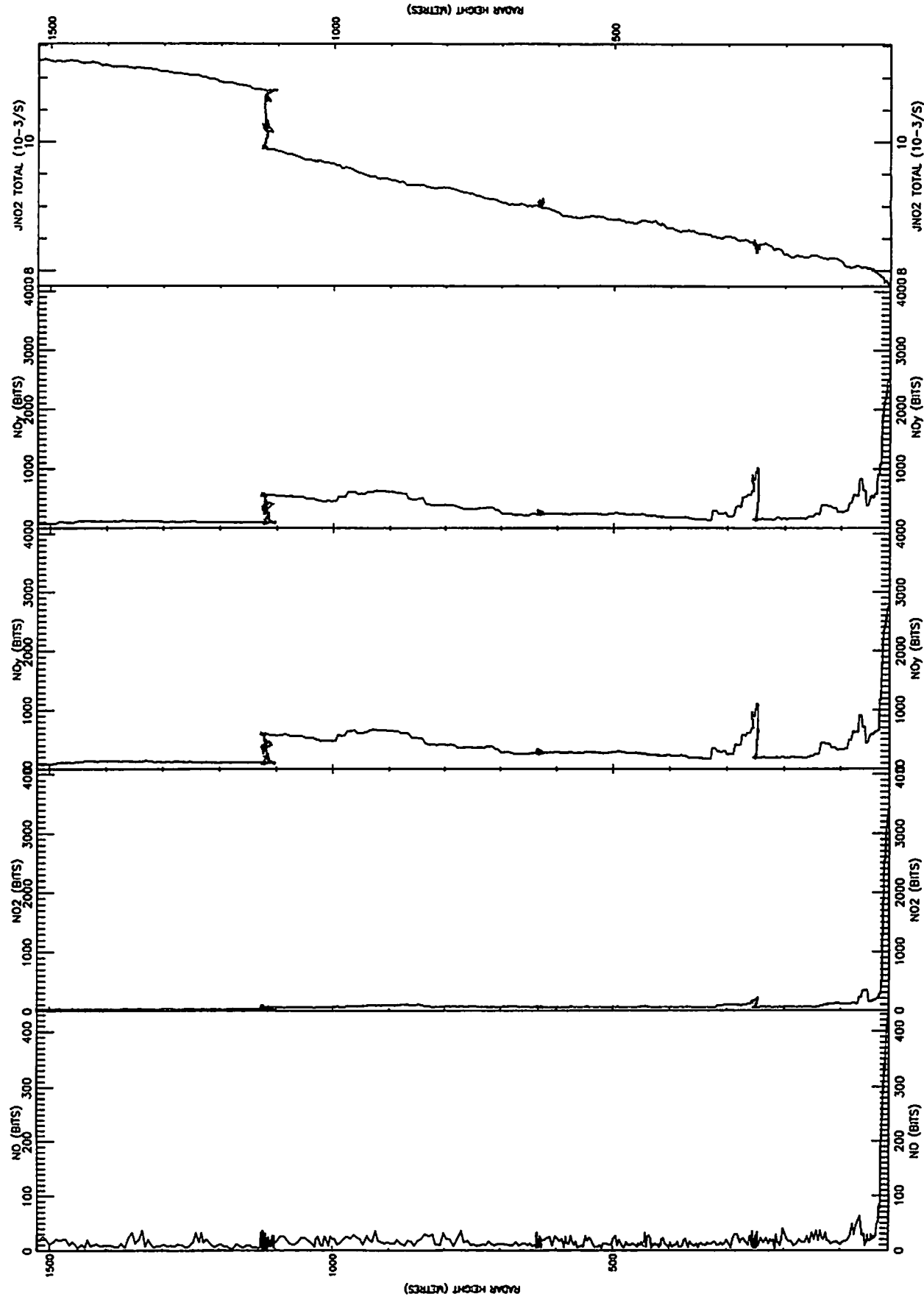
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



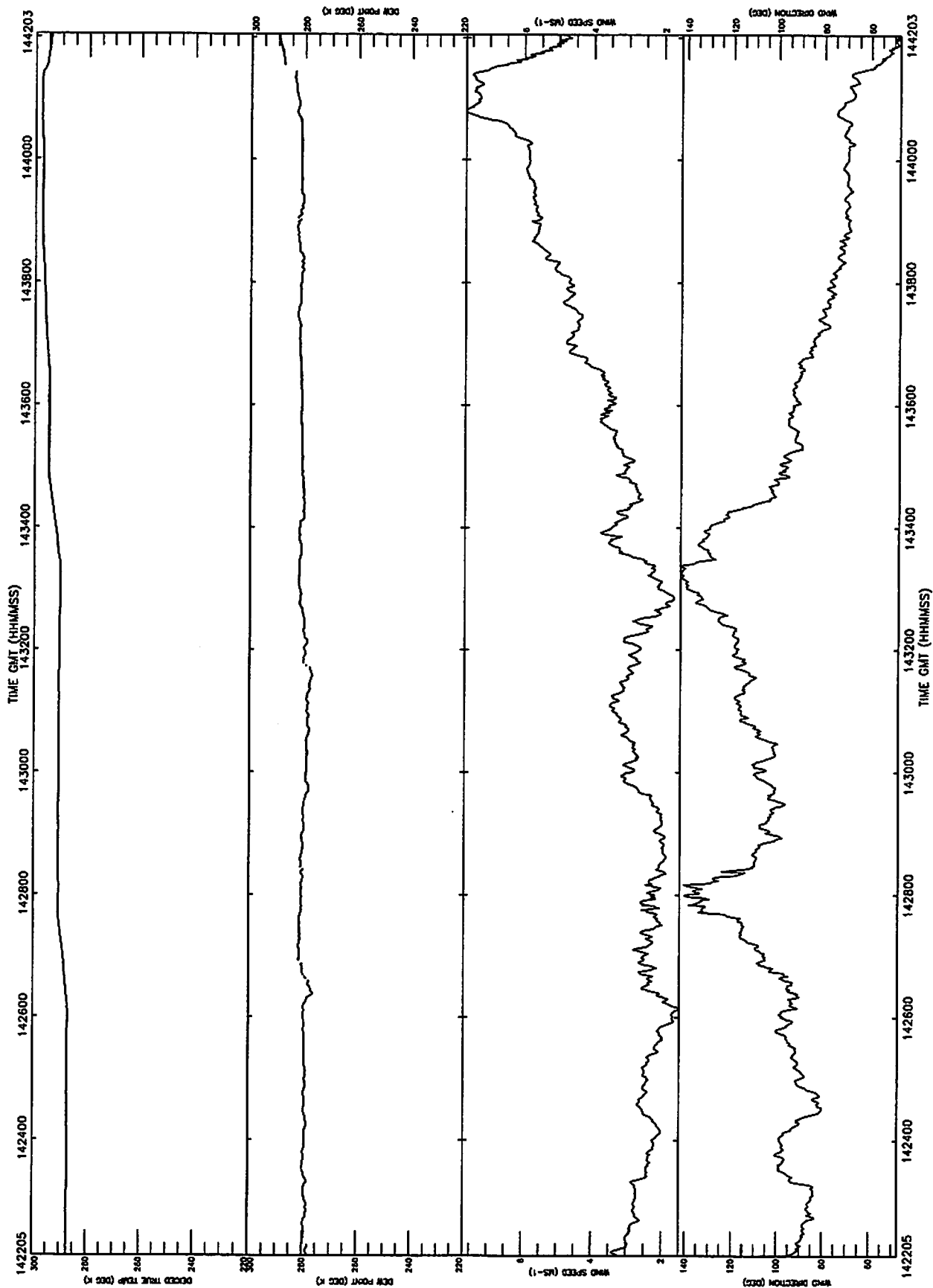
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



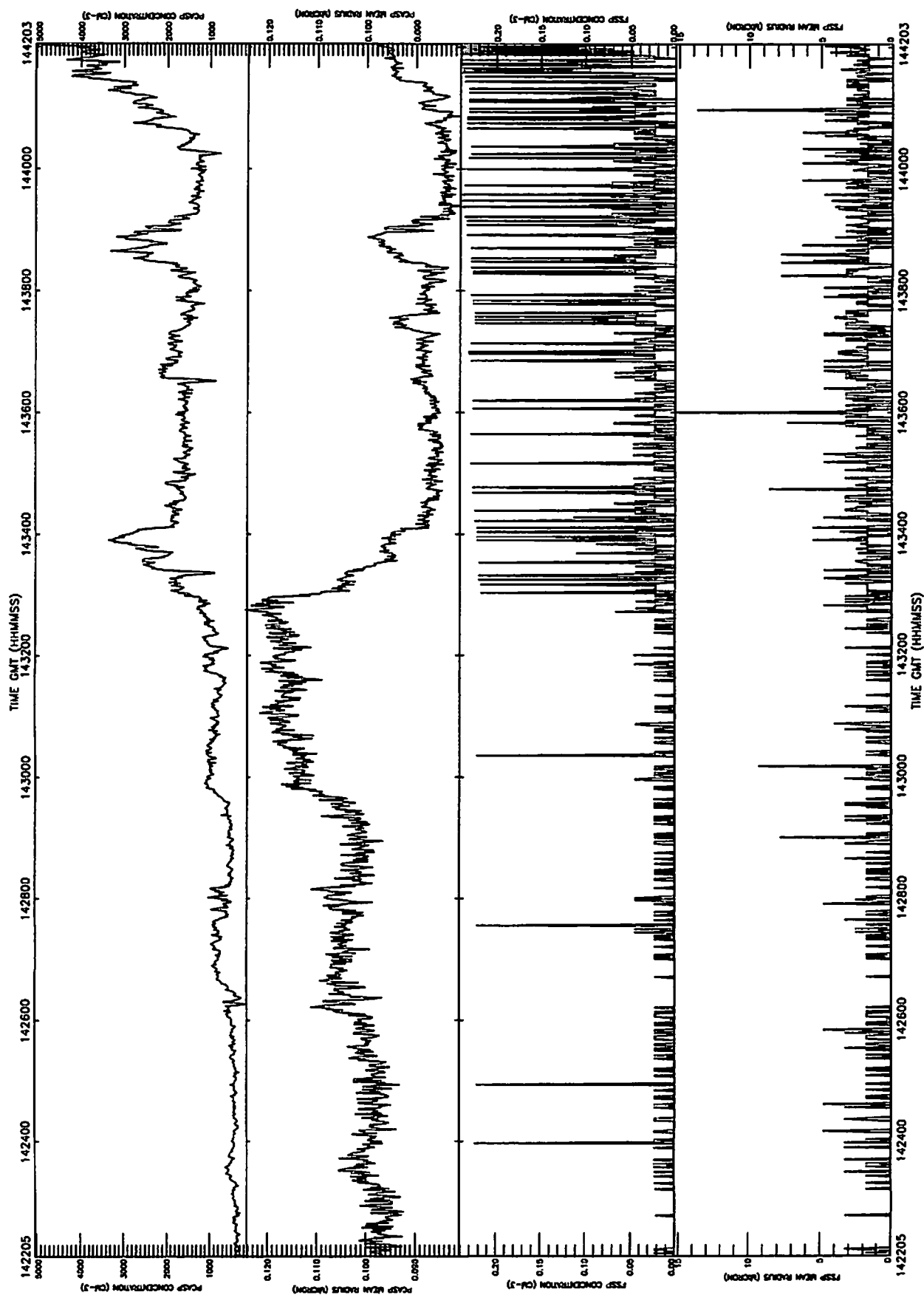
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



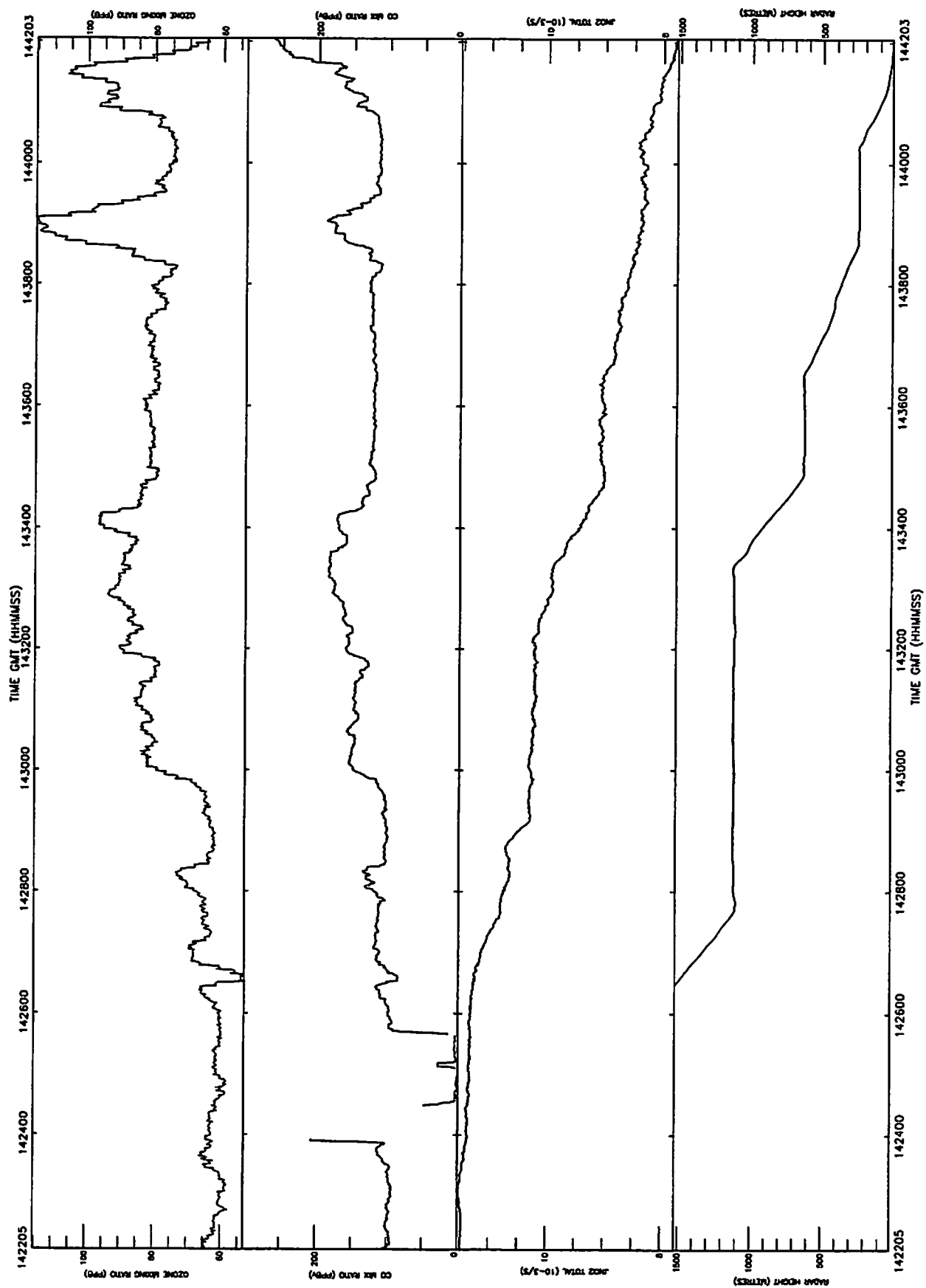
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



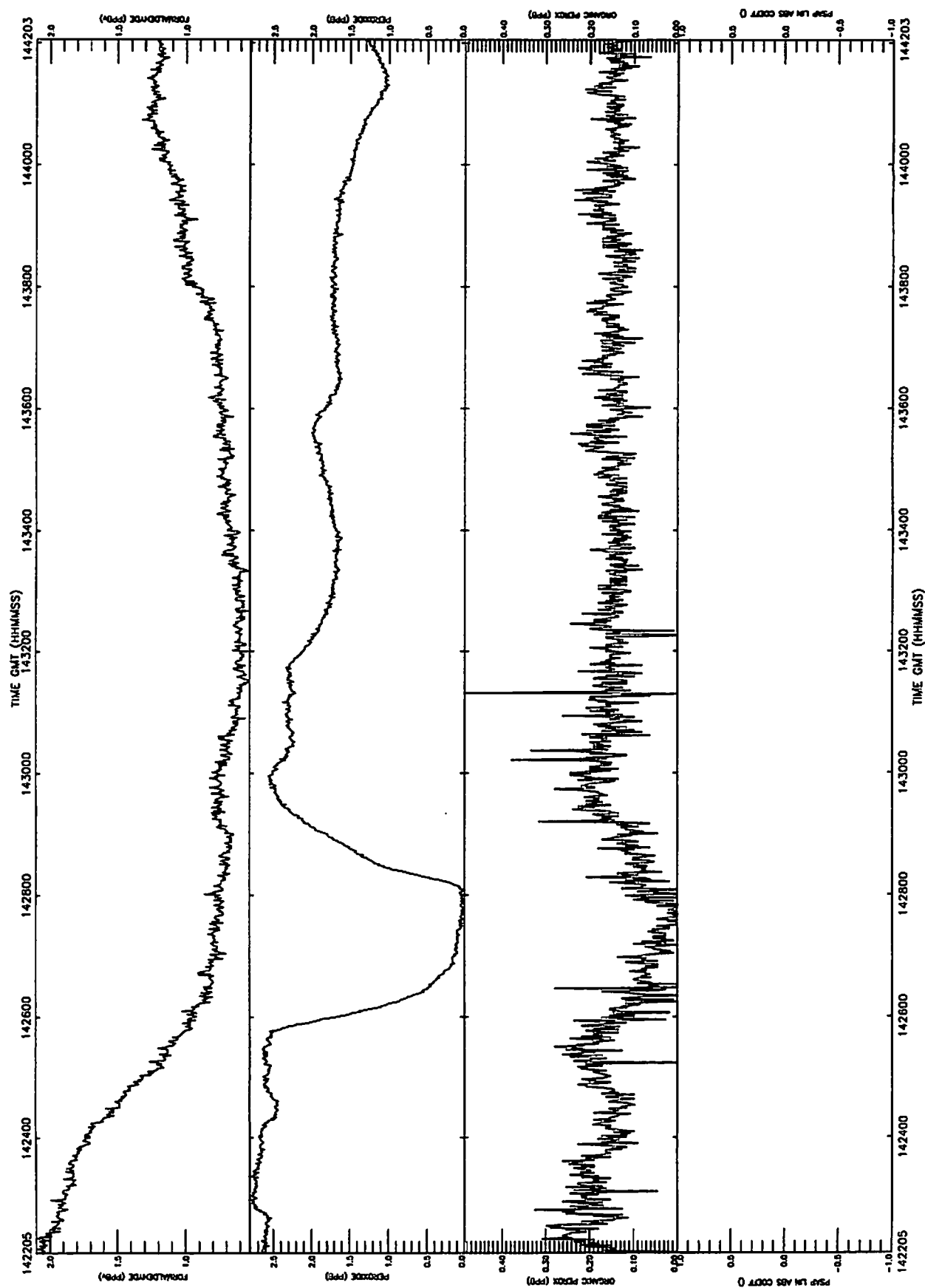
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



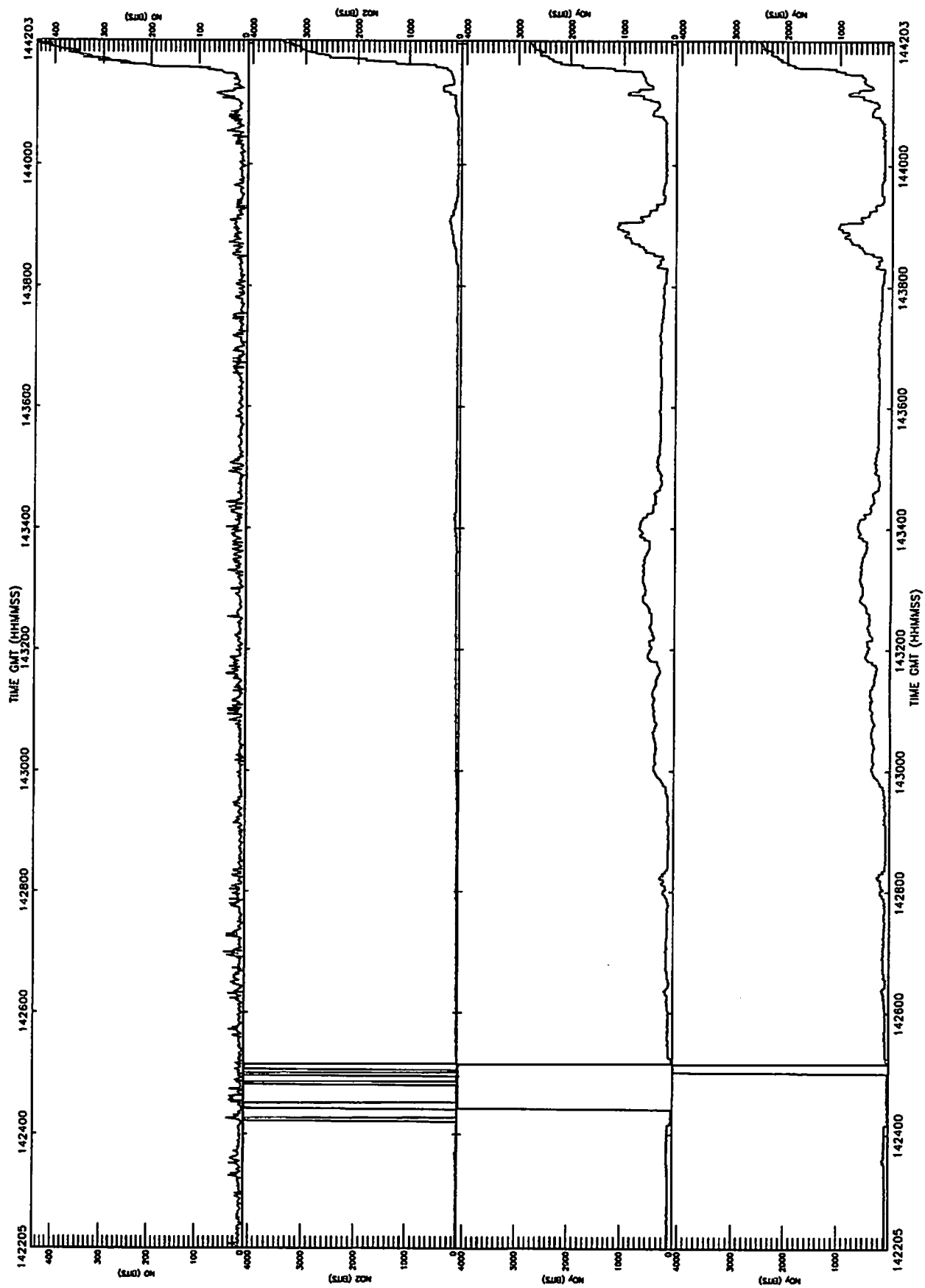
A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16



A572 19-AUG-97 R14-R17,P14-P17 5000'-50' From 142205-144203 Plotted 9-Dec-1997 16:16

STATIC PRESSURE (MB)

No of obs 1199
Mean 917.111
Standard dev 53.6538
Max value 1018.31
Min value 847.373

DEICED TRUE TEMP (DEG K)

No of obs 1199
Mean 291.947
Standard dev 3.57995
Max value 297.715
Min value 287.031

DEW POINT (DEG K)

No of obs 1199
Mean 280.596
Standard dev 1.91619
Max value 289.899
Min value 276.261

OZONE MIXING RATIO (PPB)

No of obs 1199
Mean 76.1645
Standard dev 12.5214
Max value 115.320
Min value 53.3271

PCASP CONCENTRATION (CM-3)

No of obs 1199
Mean 1249.54
Standard dev 822.116
Max value 5028.51
Min value 140.232

FSSP CONCENTRATION (CM-3)

No of obs 1199
Mean 2.602067e-02
Standard dev 5.524598e-02
Max value 0.240767
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1174
Mean 914.461
Standard dev 480.101
Max value 1522.15
Min value 14.8881

CORRECTED LATITUDE (DEGREES)

No of obs 1199
Mean 50.9919
Standard dev 0.174378
Max value 51.2379
Min value 50.6514

CORRECTED LONGITUDE (DEGREES)

No of obs 1199
Mean 1.41091
Standard dev 0.382619
Max value 2.09976
Min value 0.780770

NORTHWARD WIND COMPT (M S-1)

No of obs 1199
Mean 7.613433e-03
Standard dev 1.32962
Max value 2.49440
Min value -3.55434

EASTWARD WIND COMPT (M S-1)

No of obs 1199
Mean -3.23441
Standard dev 1.42008
Max value -1.22921
Min value -7.40559

VERTICAL WIND COMPT (M S-1)

No of obs 1199
Mean 0.250491
Standard dev 0.370545
Max value 1.09271
Min value -0.694046

WIND SPEED (MS-1)

No of obs 1199
Mean 3.46909
Standard dev 1.48663
Max value 7.68452
Min value 1.50571

WIND DIRECTION (DEG)

Mean 90.1349

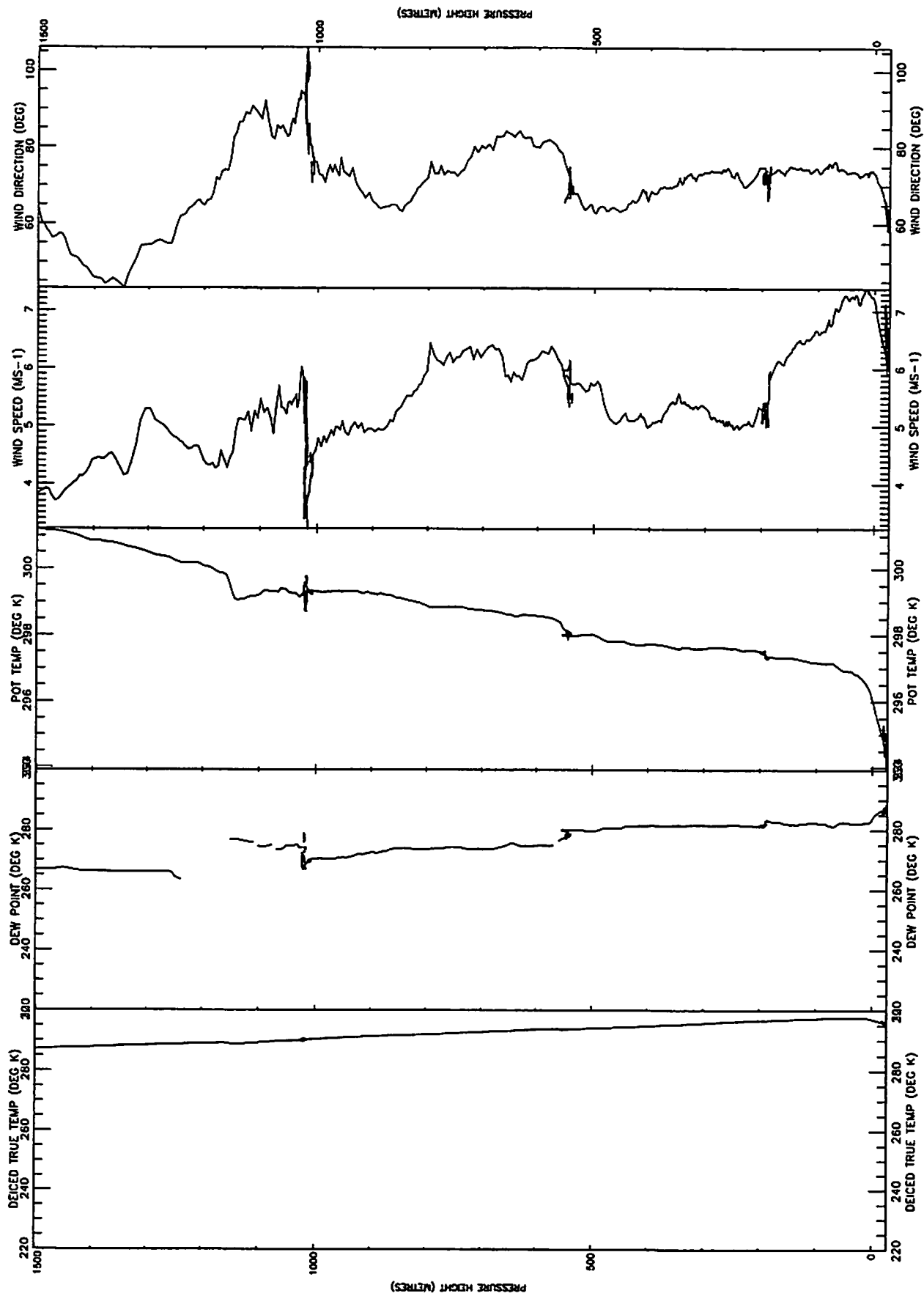
TRUE AIR SPEED (M S-1)

No of obs 1199
Mean 98.7308
Standard dev 2.96732
Max value 107.483
Min value 91.6979

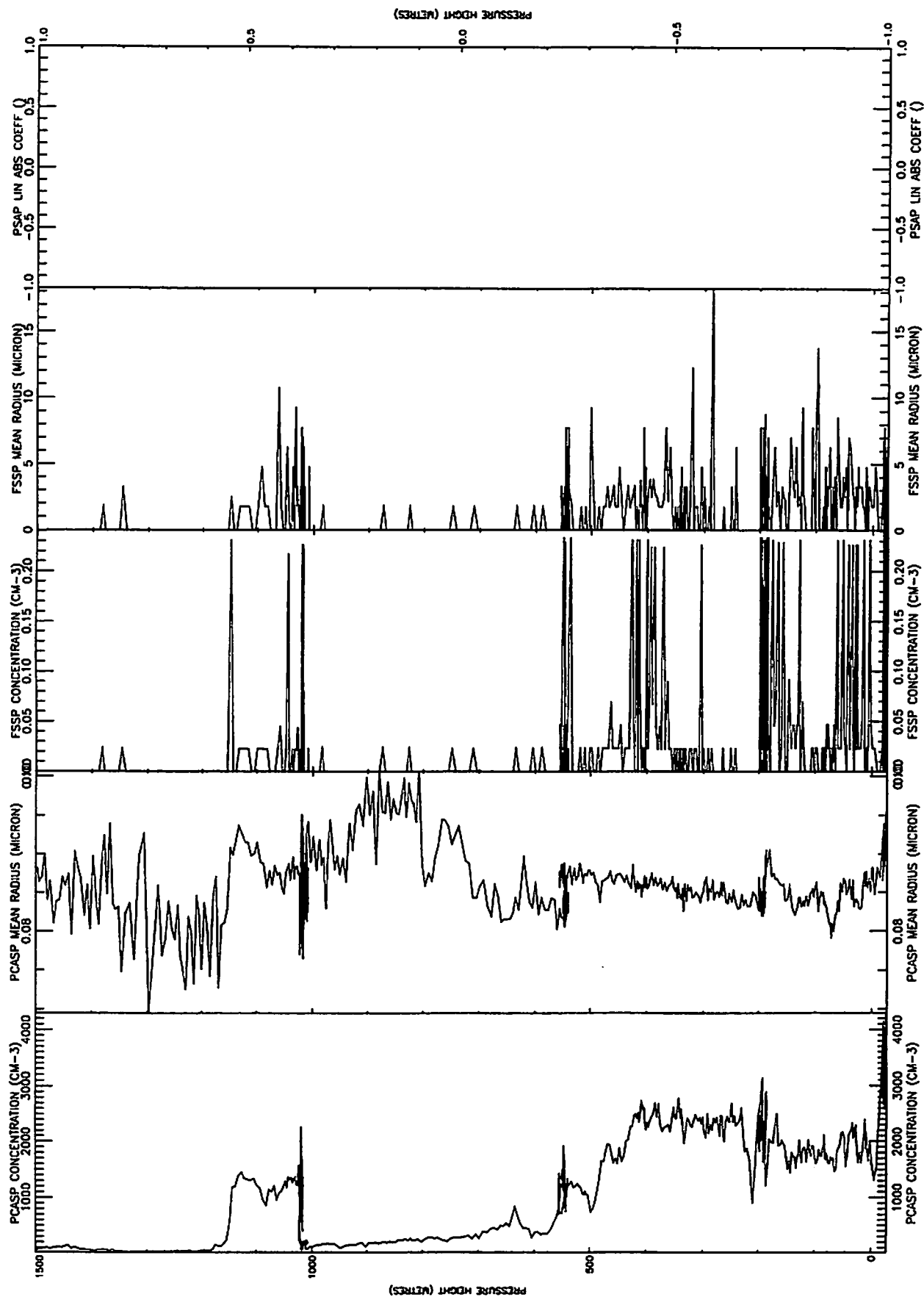
HEADING (DEG)

Mean 54.8393

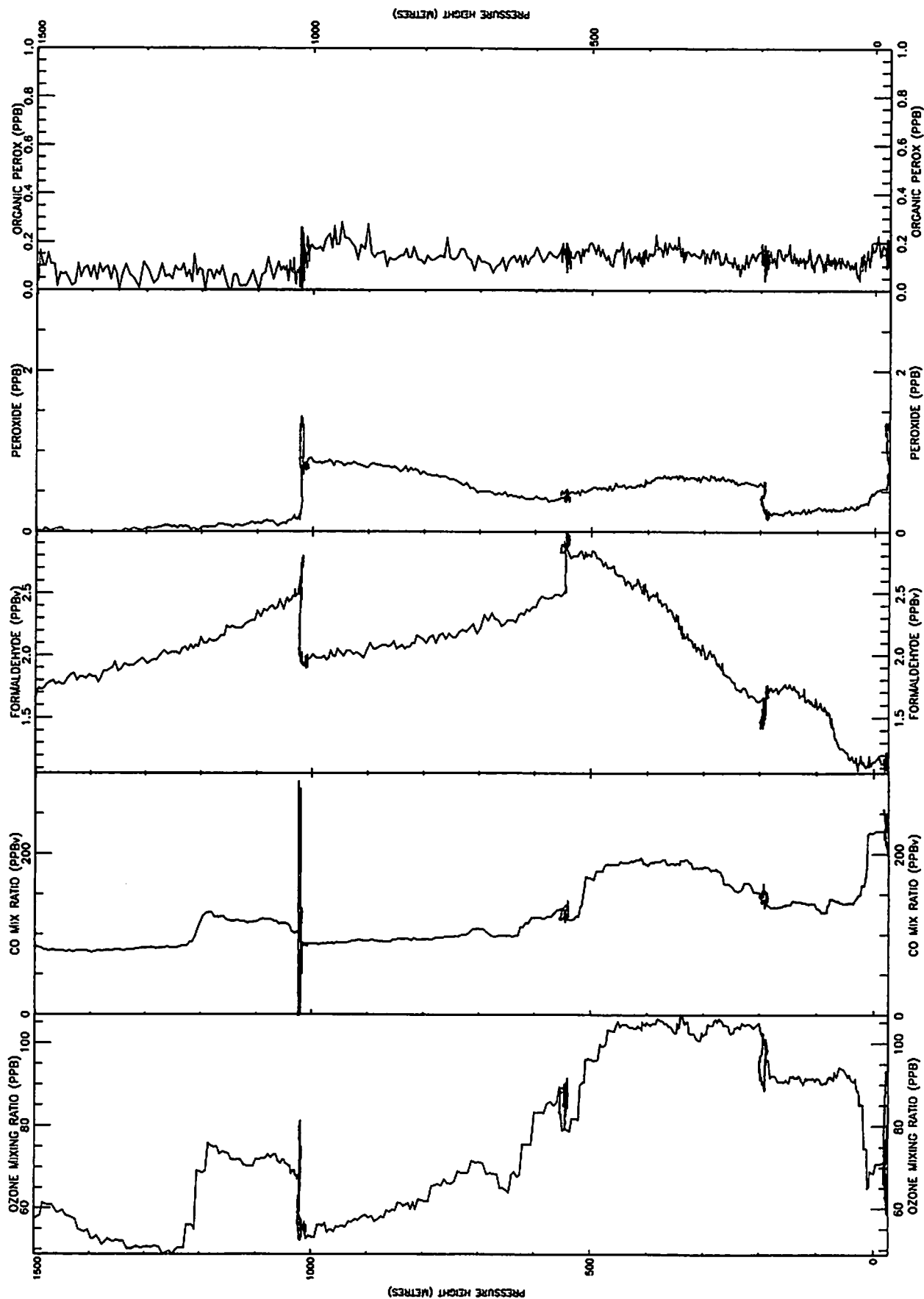
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



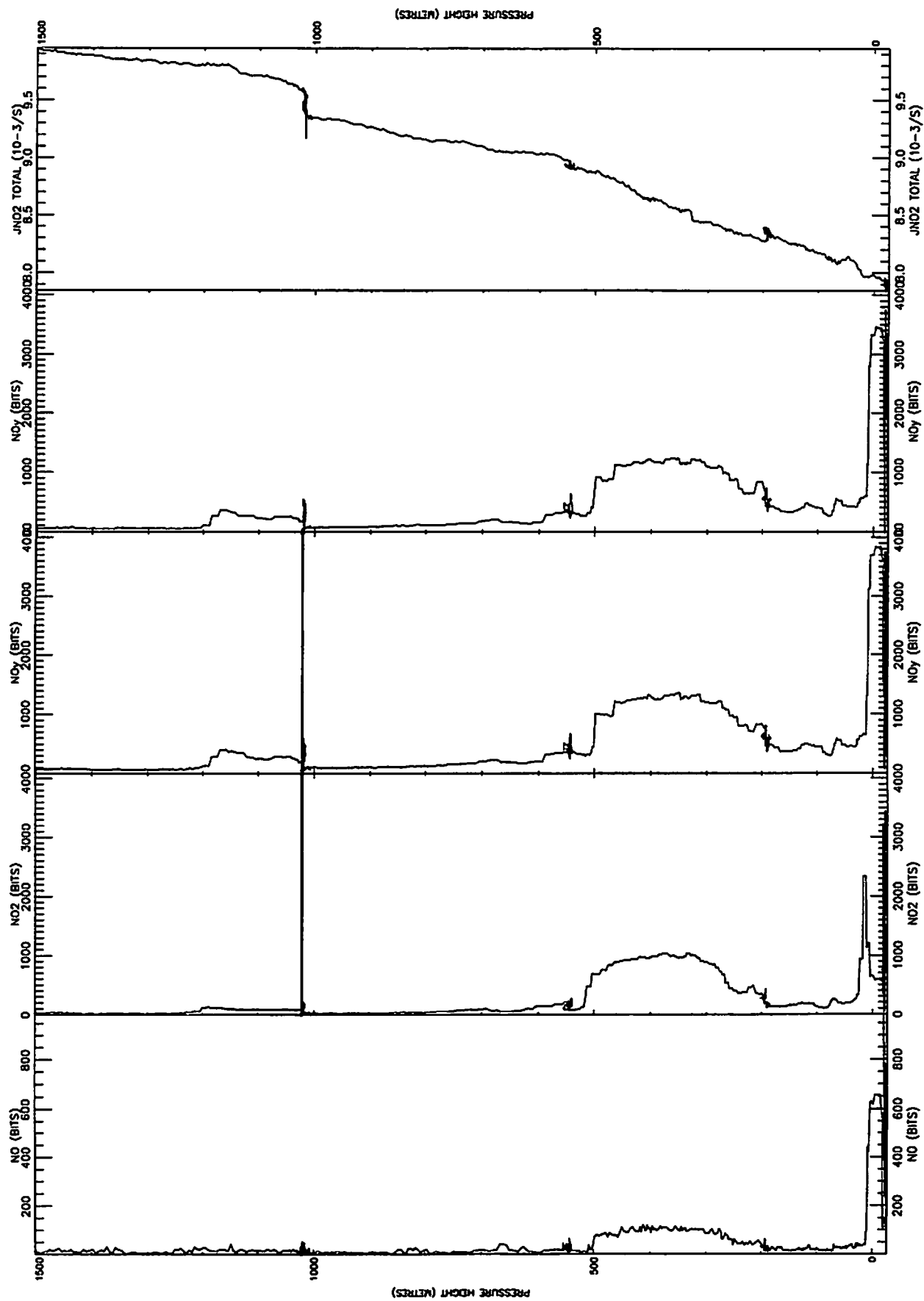
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



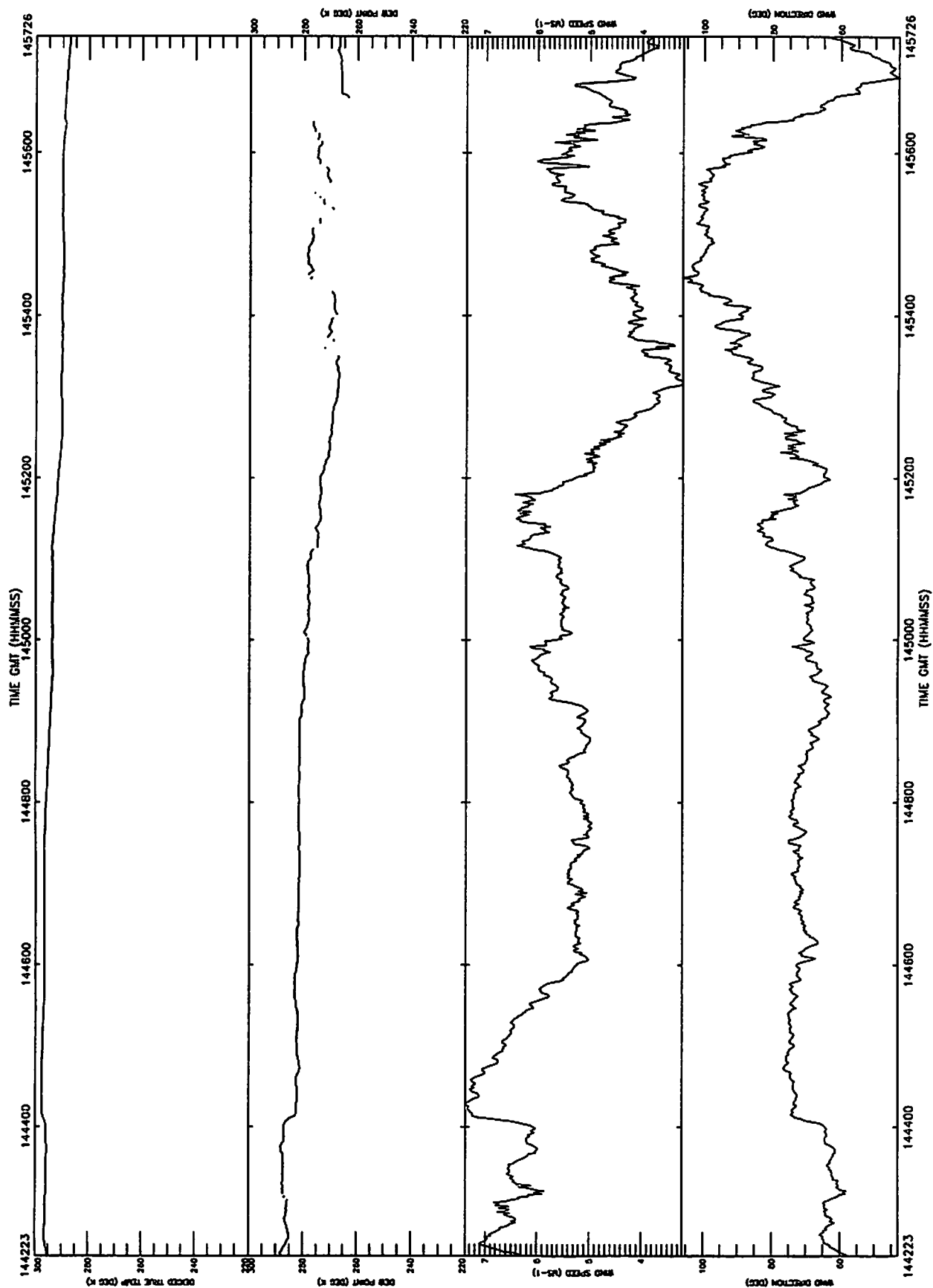
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



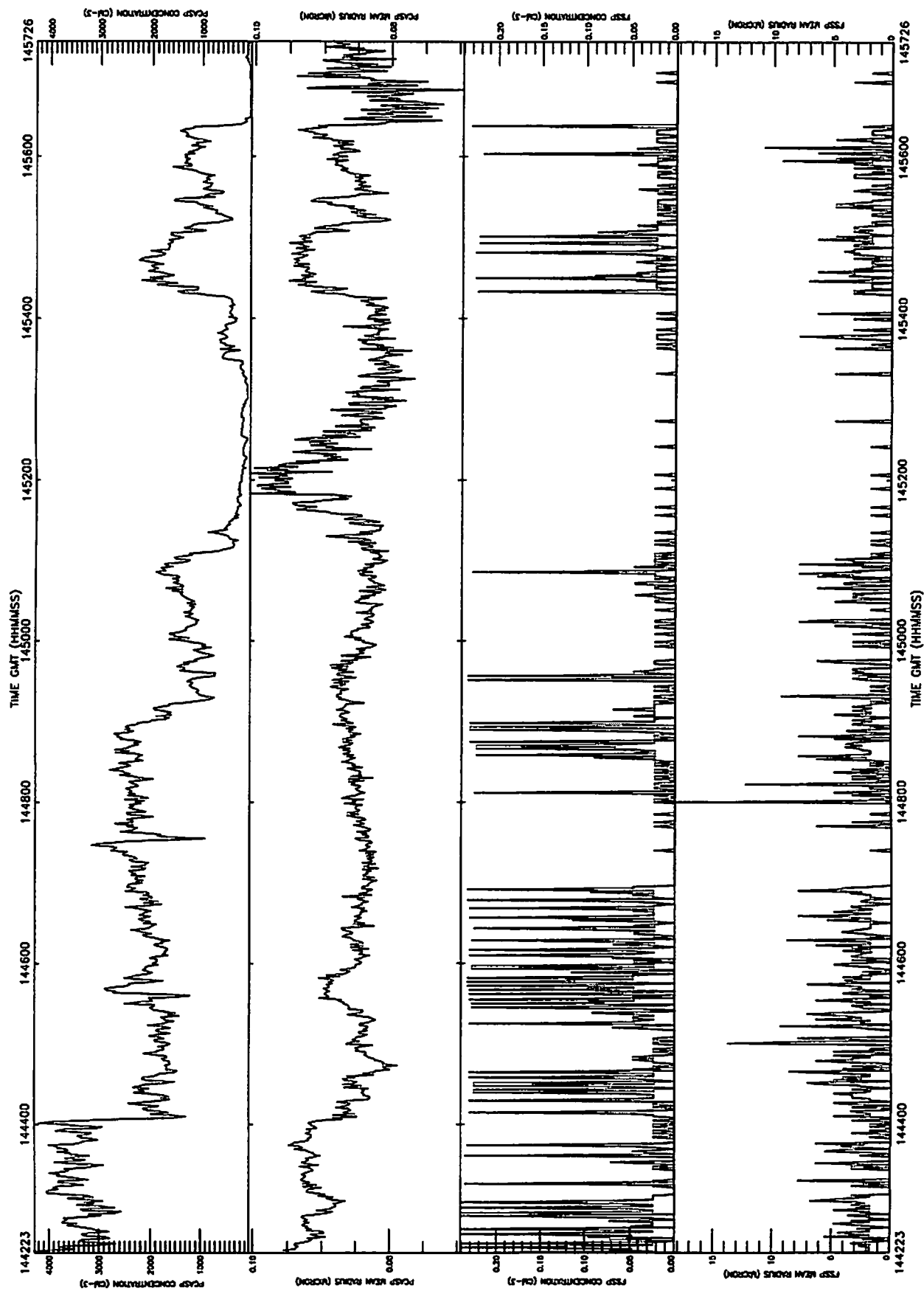
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



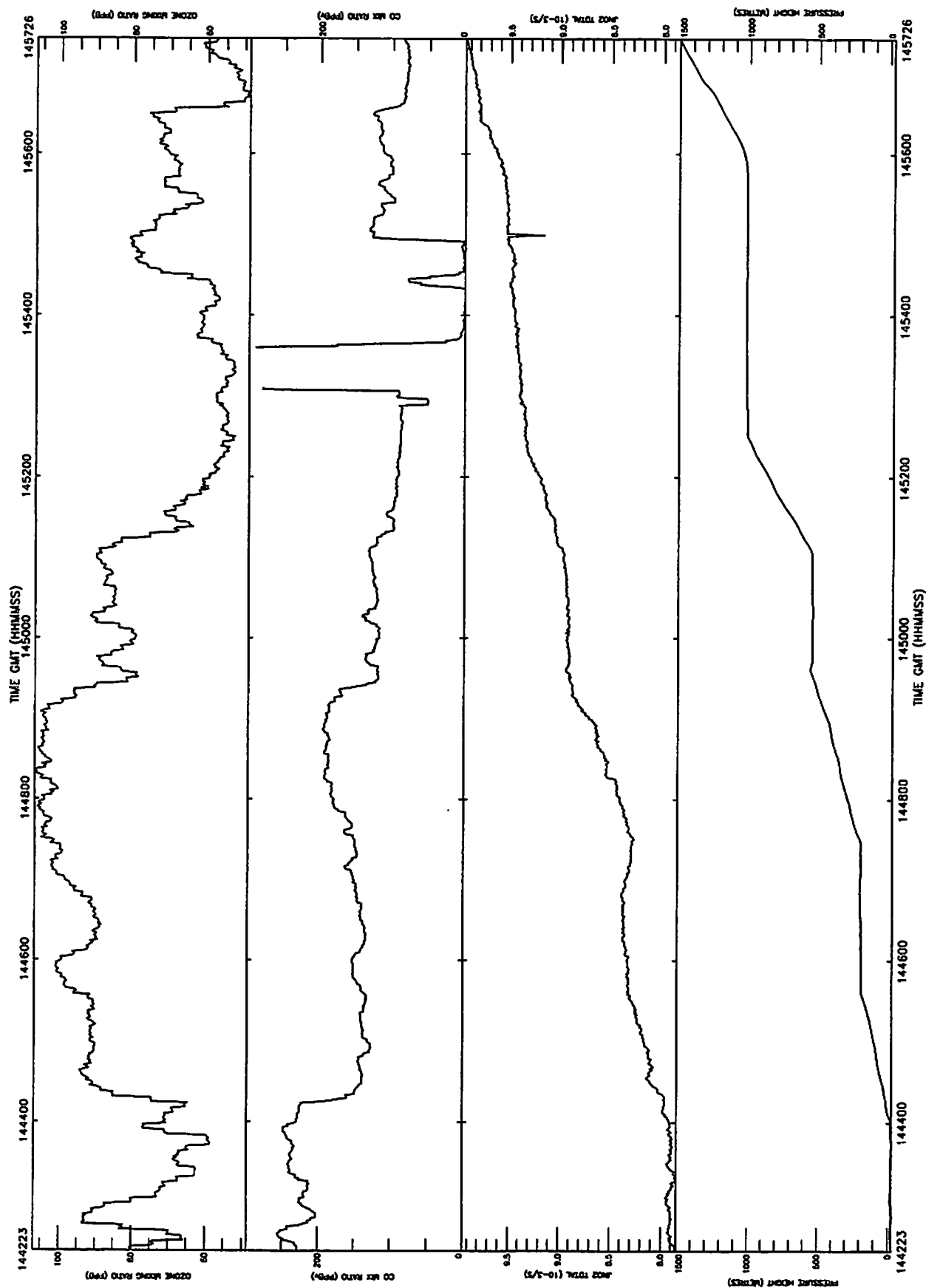
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



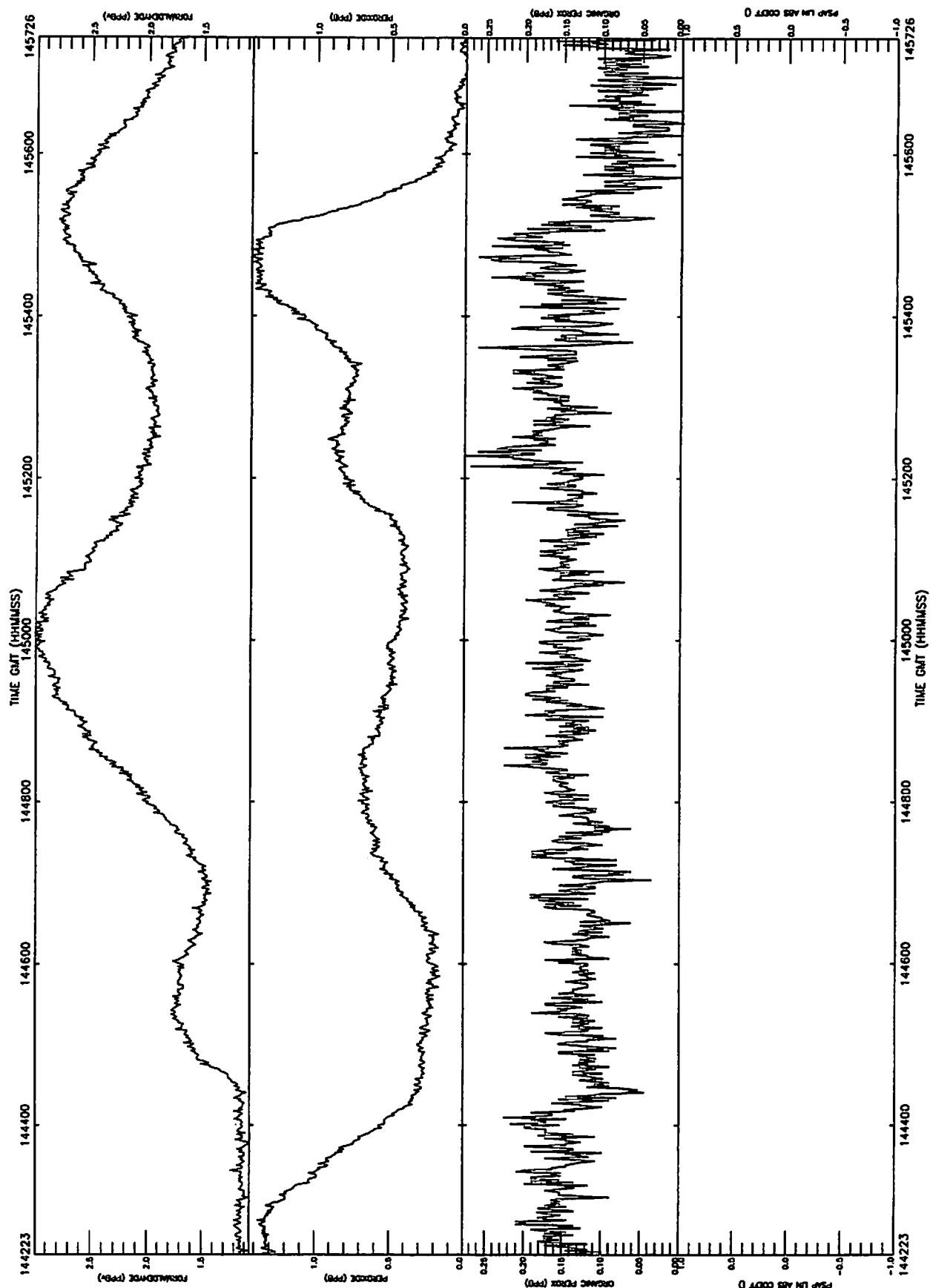
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:22



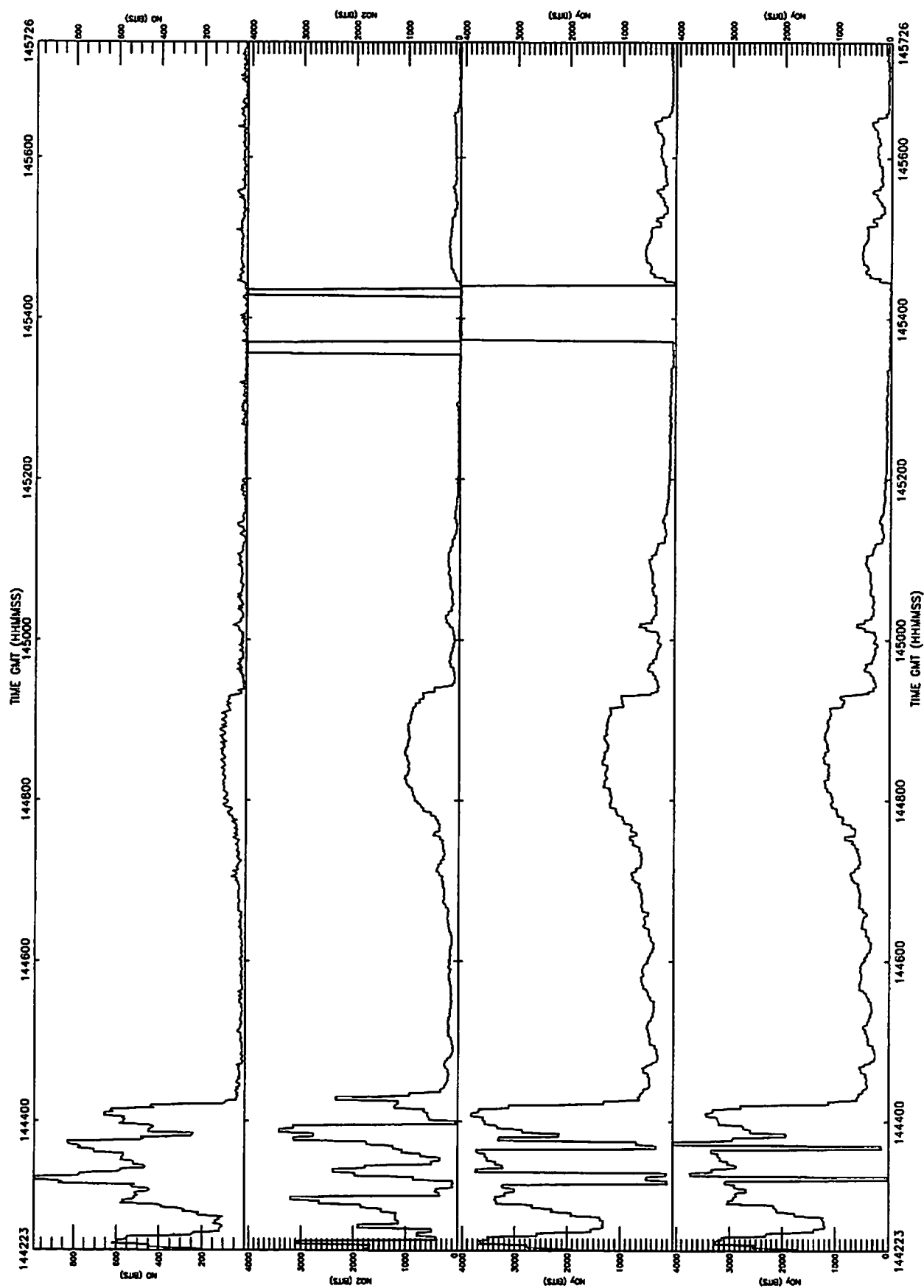
A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:23



A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:23



A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:23



A572 19-AUG-97 R18-R21,P18-P21 100'-5000' From 144223-145726 Plotted 9-Dec-1997 16:23

STATIC PRESSURE (MB)

No of obs 904
Mean 948.006
Standard dev 49.4063
Max value 1016.45
Min value 845.422

DEICED TRUE TEMP (DEG K)

No of obs 904
Mean 293.385
Standard dev 3.05214
Max value 297.654
Min value 287.107

DEW POINT (DEG K)

No of obs 904
Mean 277.650
Standard dev 6.20744
Max value 288.404
Min value 263.555

OZONE MIXING RATIO (PPB)

No of obs 904
Mean 78.6086
Standard dev 16.9032
Max value 106.870
Min value 48.8347

PCASP CONCENTRATION (CM-3)

No of obs 904
Mean 1515.04
Standard dev 1055.28
Max value 4288.55
Min value 14.2614

FSSP CONCENTRATION (CM-3)

No of obs 904
Mean 2.665926e-02
Standard dev 5.638256e-02
Max value 0.240759
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 904
Mean 567.042
Standard dev 436.044
Max value 1501.30
Min value -26.5654

CORRECTED LATITUDE (DEGREES)

No of obs 904
Mean 51.3939
Standard dev 9.876424e-02
Max value 51.6186
Min value 51.2439

CORRECTED LONGITUDE (DEGREES)

No of obs 904
Mean 2.65253
Standard dev 0.299894
Max value 3.09056
Min value 2.12308

NORTHWARD WIND COMPT (M S-1)

No of obs 904
Mean -1.43894
Standard dev 1.12435
Max value 1.28338
Min value -3.45448

EASTWARD WIND COMPT (M S-1)

No of obs 904
Mean -5.06394
Standard dev 0.869347
Max value -2.83745
Min value -7.08418

VERTICAL WIND COMPT (M S-1)

No of obs 904
Mean -0.319221
Standard dev 0.311536
Max value 0.489754
Min value -1.04241

WIND SPEED (MS-1)

No of obs 904
Mean 5.37649
Standard dev 0.908832
Max value 7.38686
Min value 3.21768

WIND DIRECTION (DEG)

Mean 74.1373

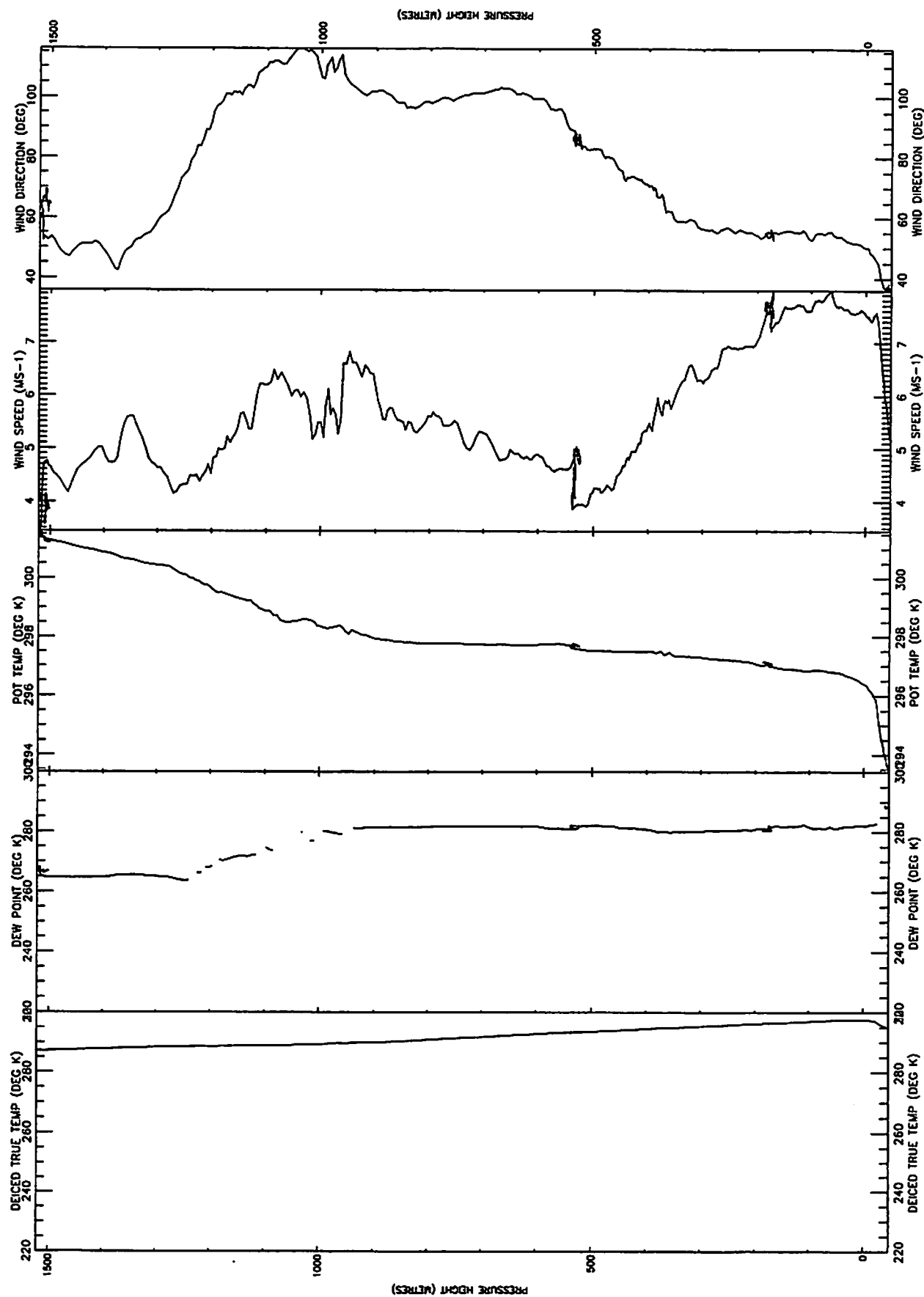
TRUE AIR SPEED (M S-1)

No of obs 904
Mean 96.8688
Standard dev 2.45567
Max value 104.127
Min value 91.3179

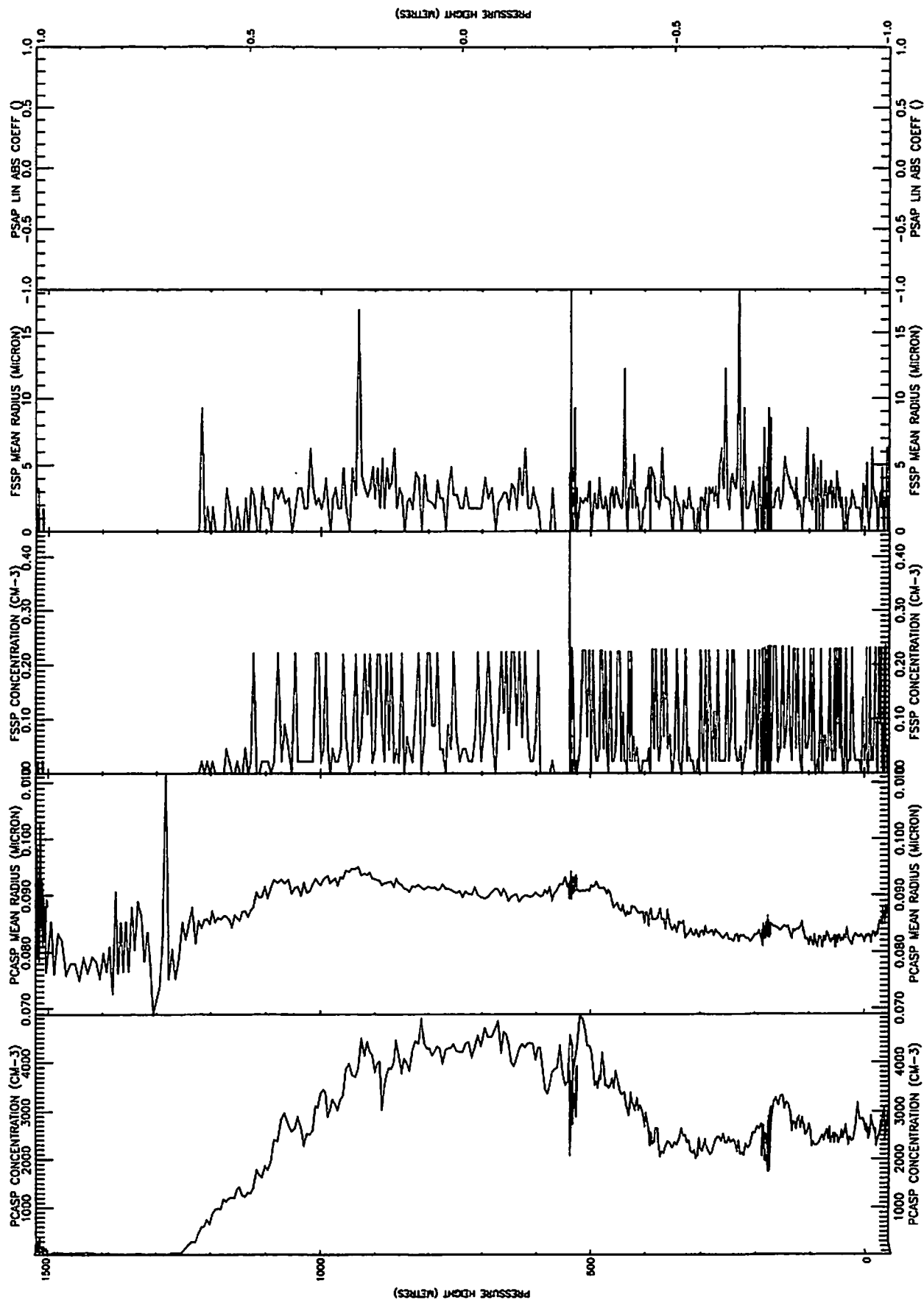
HEADING (DEG)

Mean 58.2156

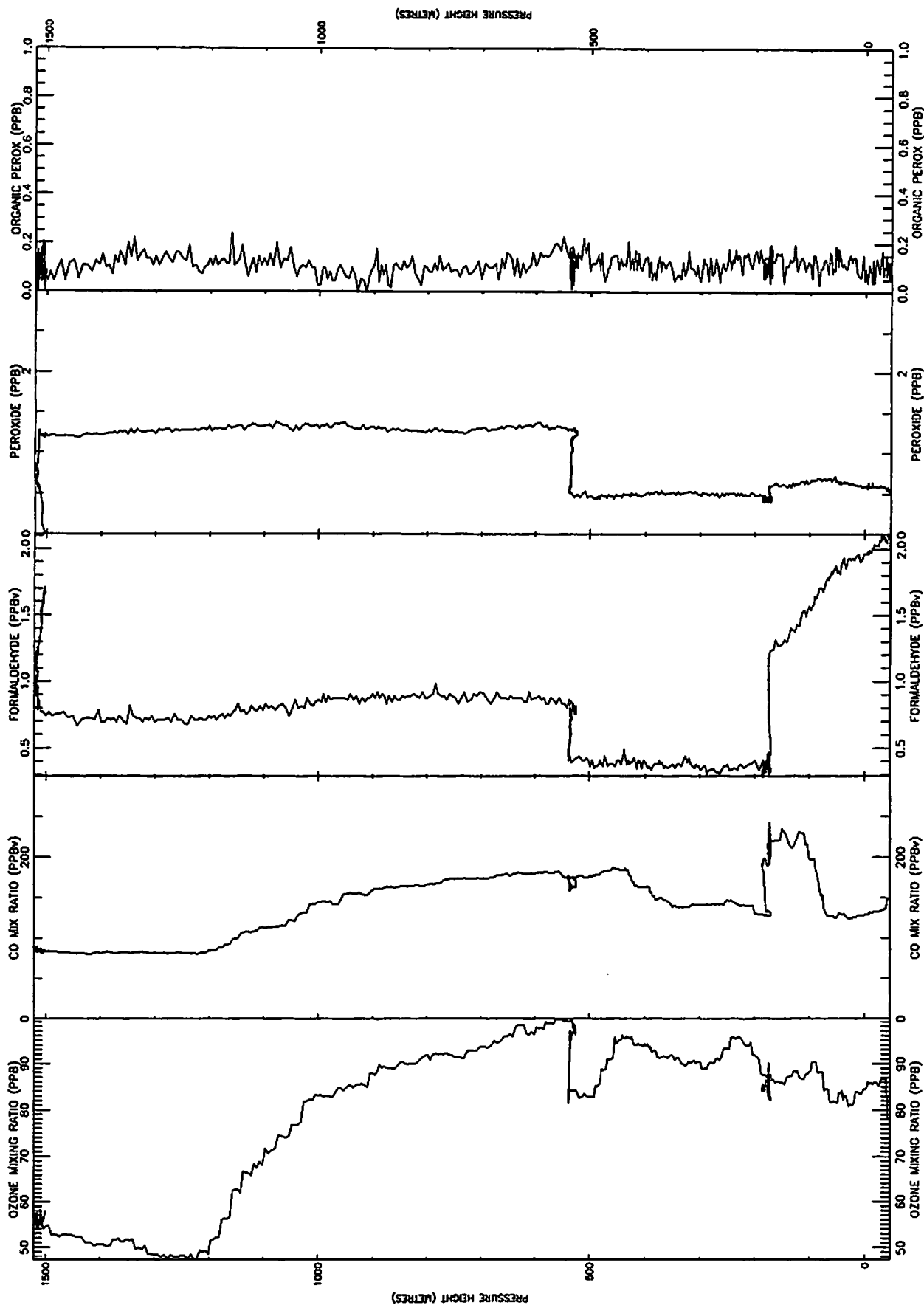
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:26



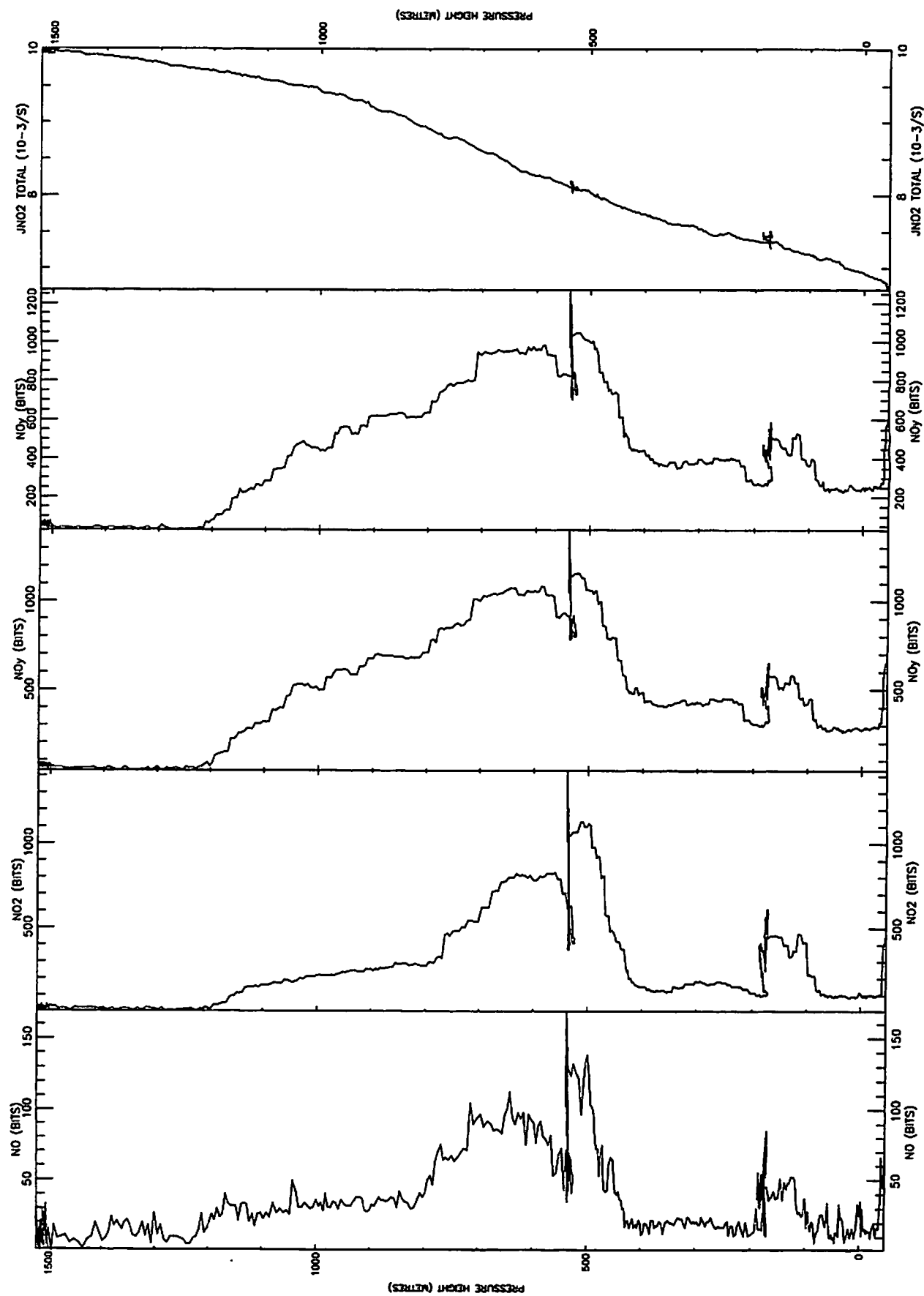
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



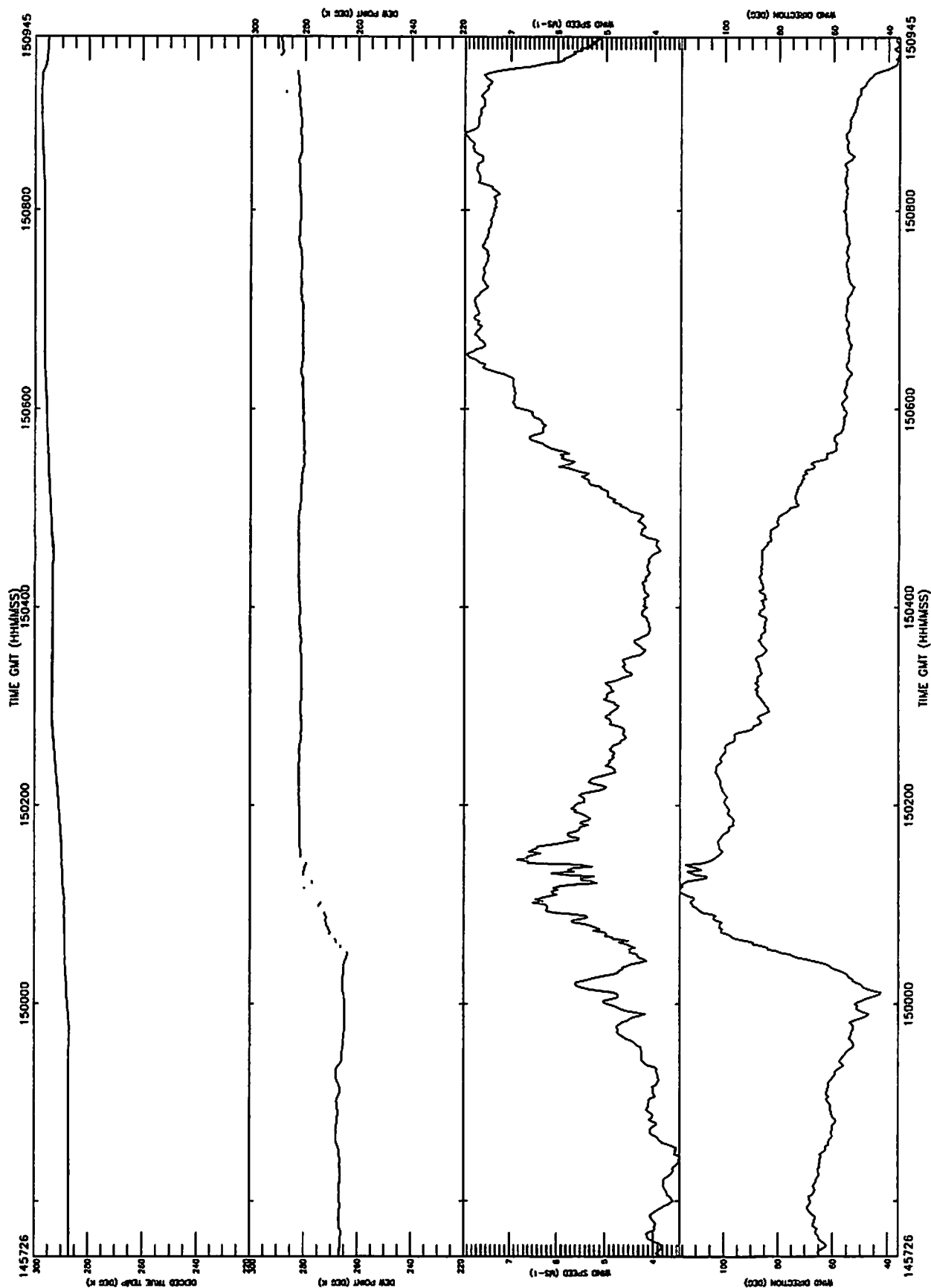
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



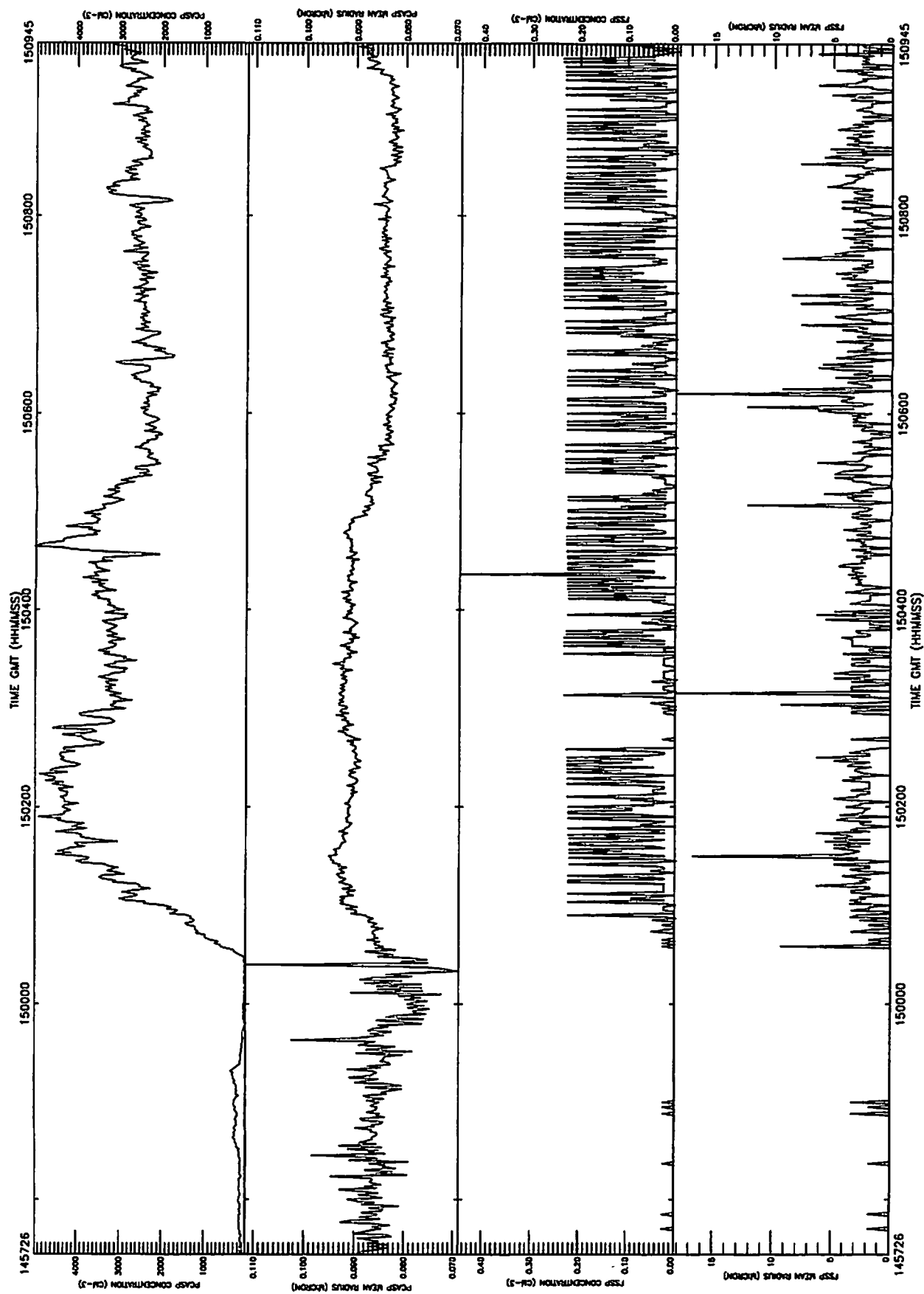
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



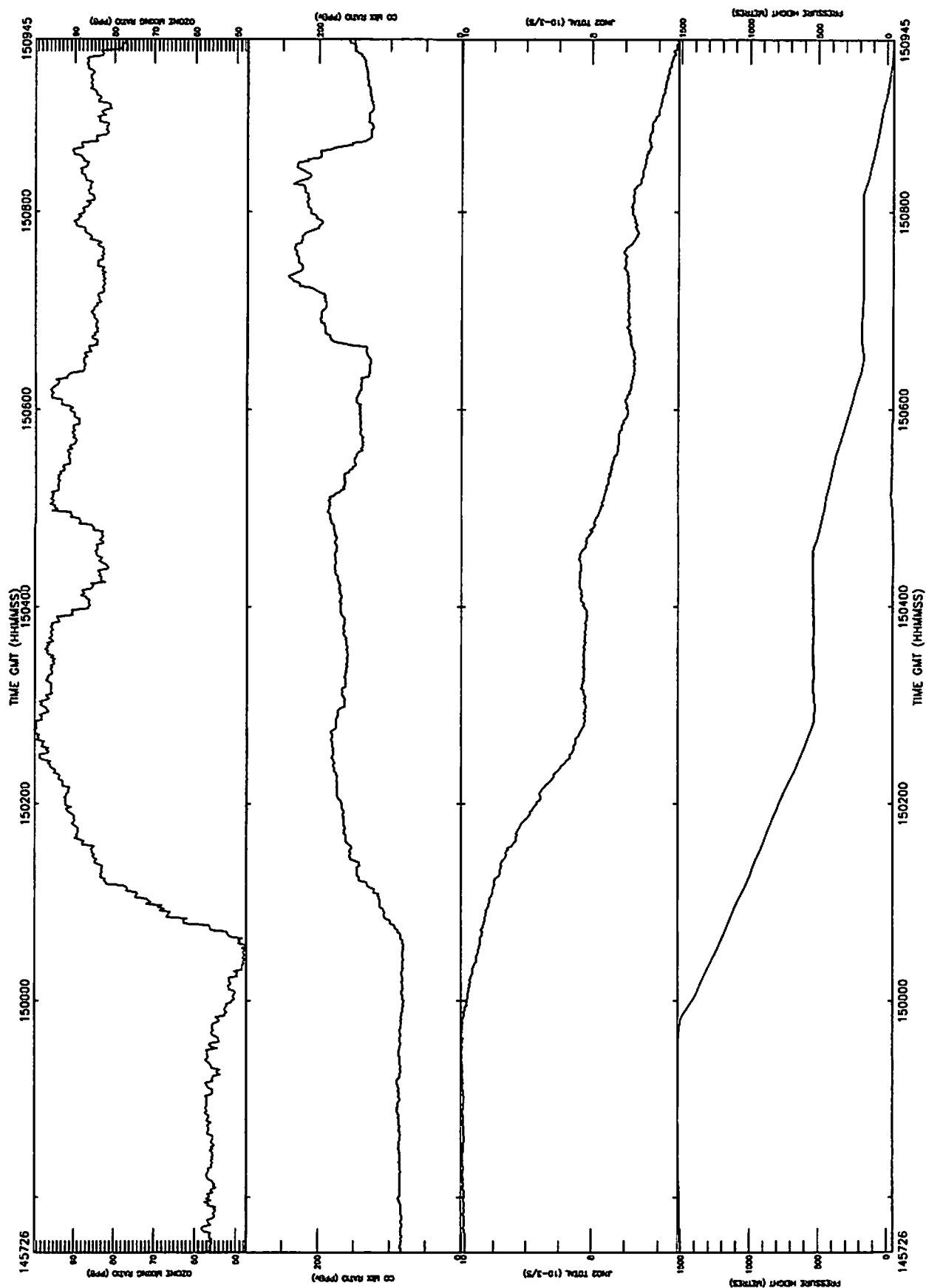
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



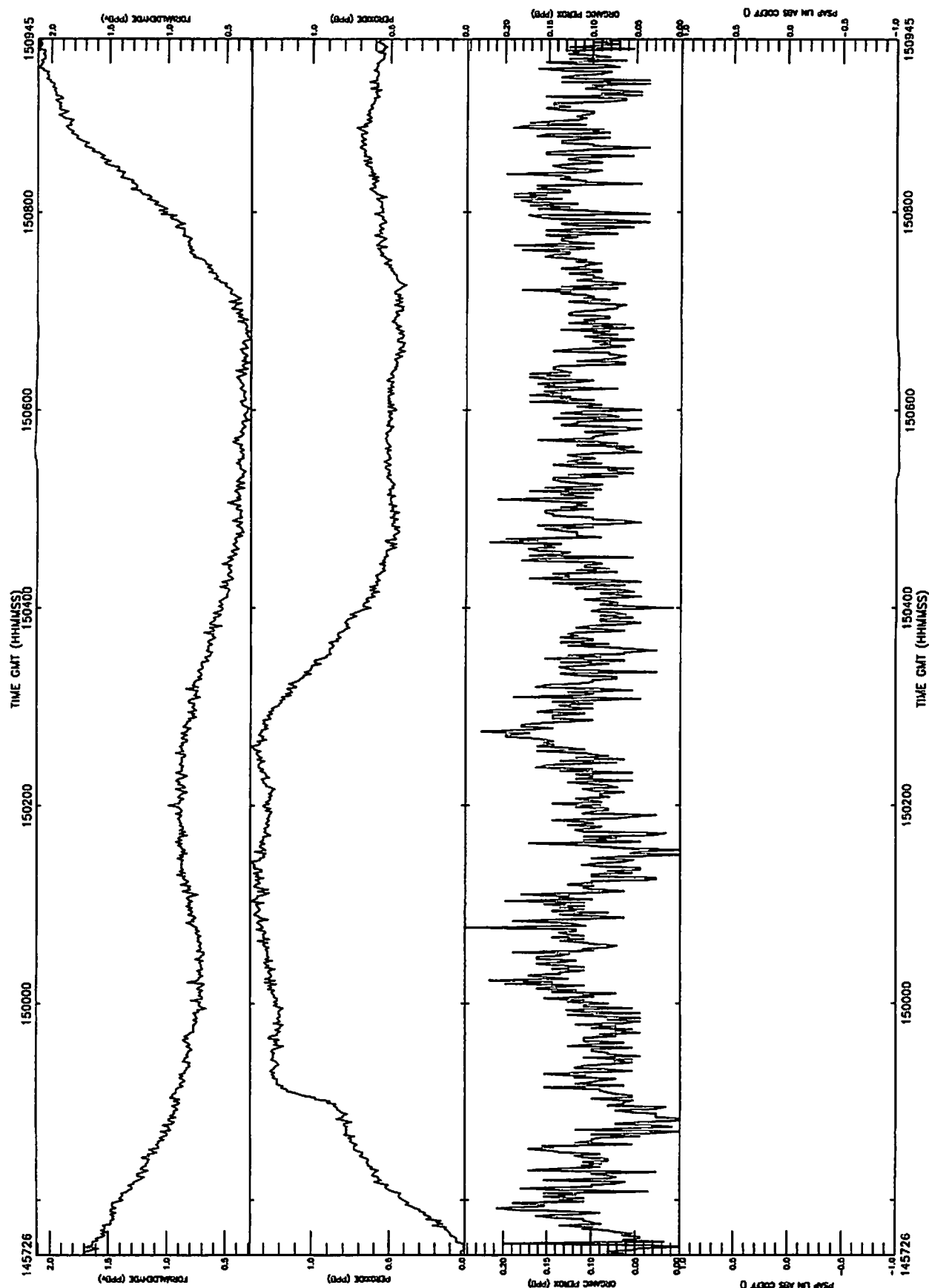
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



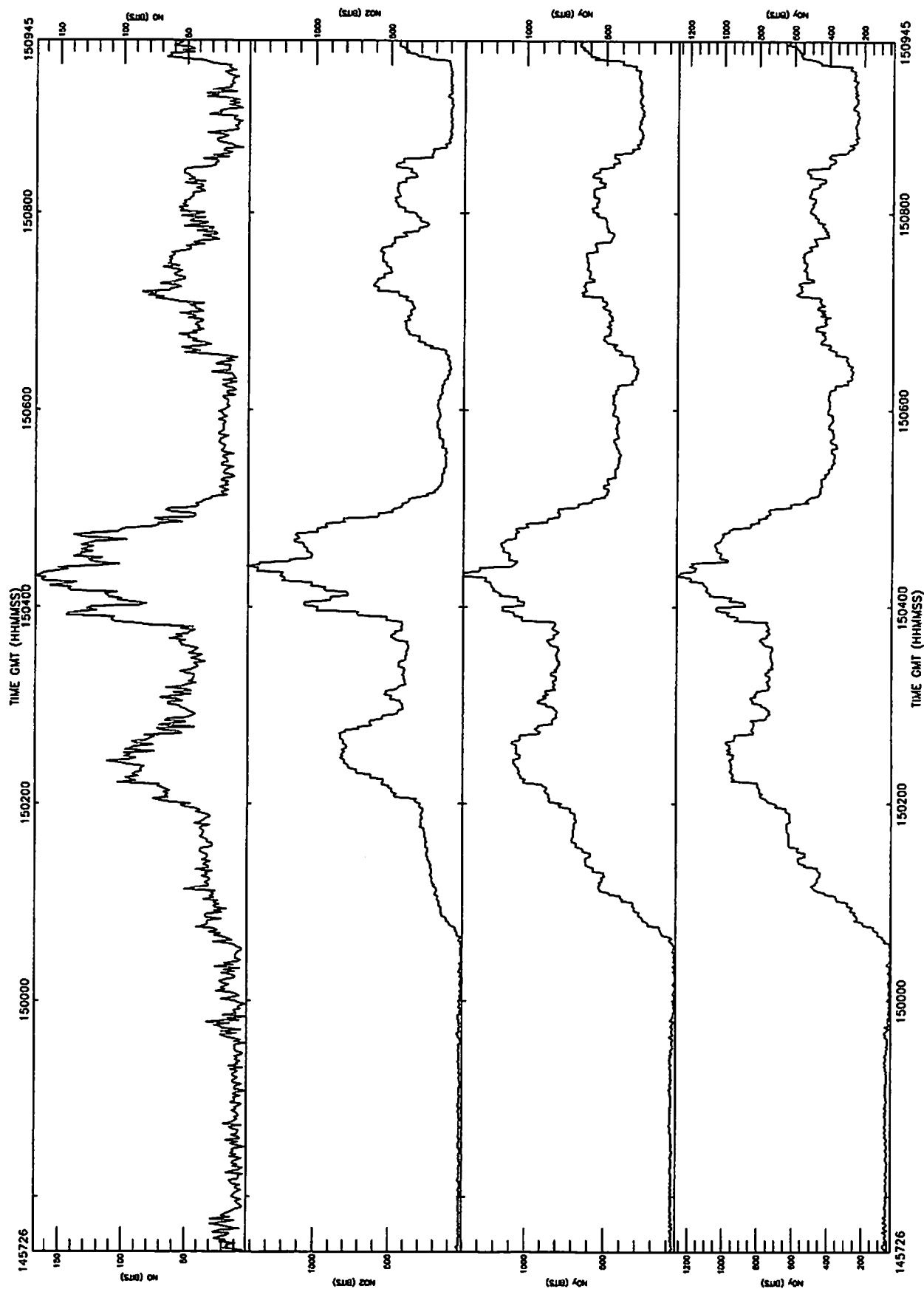
A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27



A572 19-AUG-97 R22-R24,P22-P25 FL050-50' From 145726-150945 Plotted 9-Dec-1997 16:27

STATIC PRESSURE (MB)

No of obs 740
Mean 933.913
Standard dev 59.4534
Max value 1018.83
Min value 843.195

DEICED TRUE TEMP (DEG K)

No of obs 740
Mean 292.422
Standard dev 3.67042
Max value 297.523
Min value 287.057

DEW POINT (DEG K)

No of obs 740
Mean 277.167
Standard dev 6.82071
Max value 288.870
Min value 263.747

OZONE MIXING RATIO (PPB)

No of obs 740
Mean 78.9968
Standard dev 15.9519
Max value 99.6696
Min value 47.4239

PCASP CONCENTRATION (CM-3)

No of obs 740
Mean 2229.89
Standard dev 1387.63
Max value 4971.29
Min value 28.0073

FSSP CONCENTRATION (CM-3)

No of obs 740
Mean 5.956786e-02
Standard dev 8.430707e-02
Max value 0.447486
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 740
Mean 696.235
Standard dev 534.877
Max value 1522.79
Min value -46.3261

CORRECTED LATITUDE (DEGREES)

No of obs 740
Mean 51.9167
Standard dev 0.169368
Max value 52.2017
Min value 51.6186

CORRECTED LONGITUDE (DEGREES)

No of obs 740
Mean 3.29229
Standard dev 0.113580
Max value 3.48324
Min value 3.09056

NORTHWARD WIND COMPT (M S-1)

No of obs 740
Mean -1.92915
Standard dev 2.09443
Max value 2.67641
Min value -5.32584

EASTWARD WIND COMPT (M S-1)

No of obs 740
Mean -4.84167
Standard dev 1.04860
Max value -3.05115
Min value -6.60847

VERTICAL WIND COMPT (M S-1)

No of obs 740
Mean 0.446580
Standard dev 0.516530
Max value 1.41376
Min value -0.548500

WIND SPEED (MS-1)

No of obs 740
Mean 5.53388
Standard dev 1.42161
Max value 7.97526
Min value 3.44631

WIND DIRECTION (DEG)

Mean 68.2753

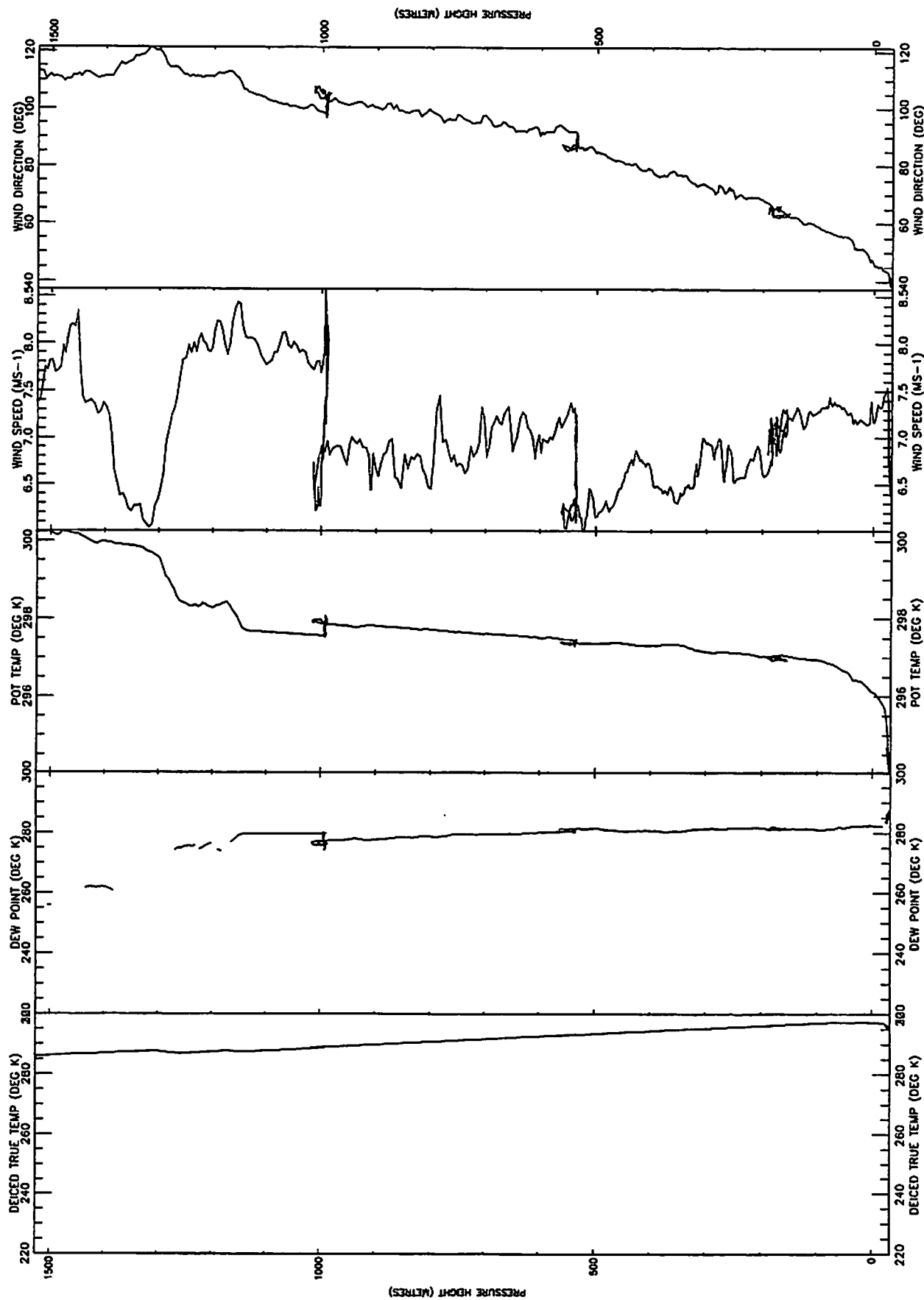
TRUE AIR SPEED (M S-1)

No of obs 740
Mean 98.5398
Standard dev 3.02963
Max value 105.745
Min value 91.7330

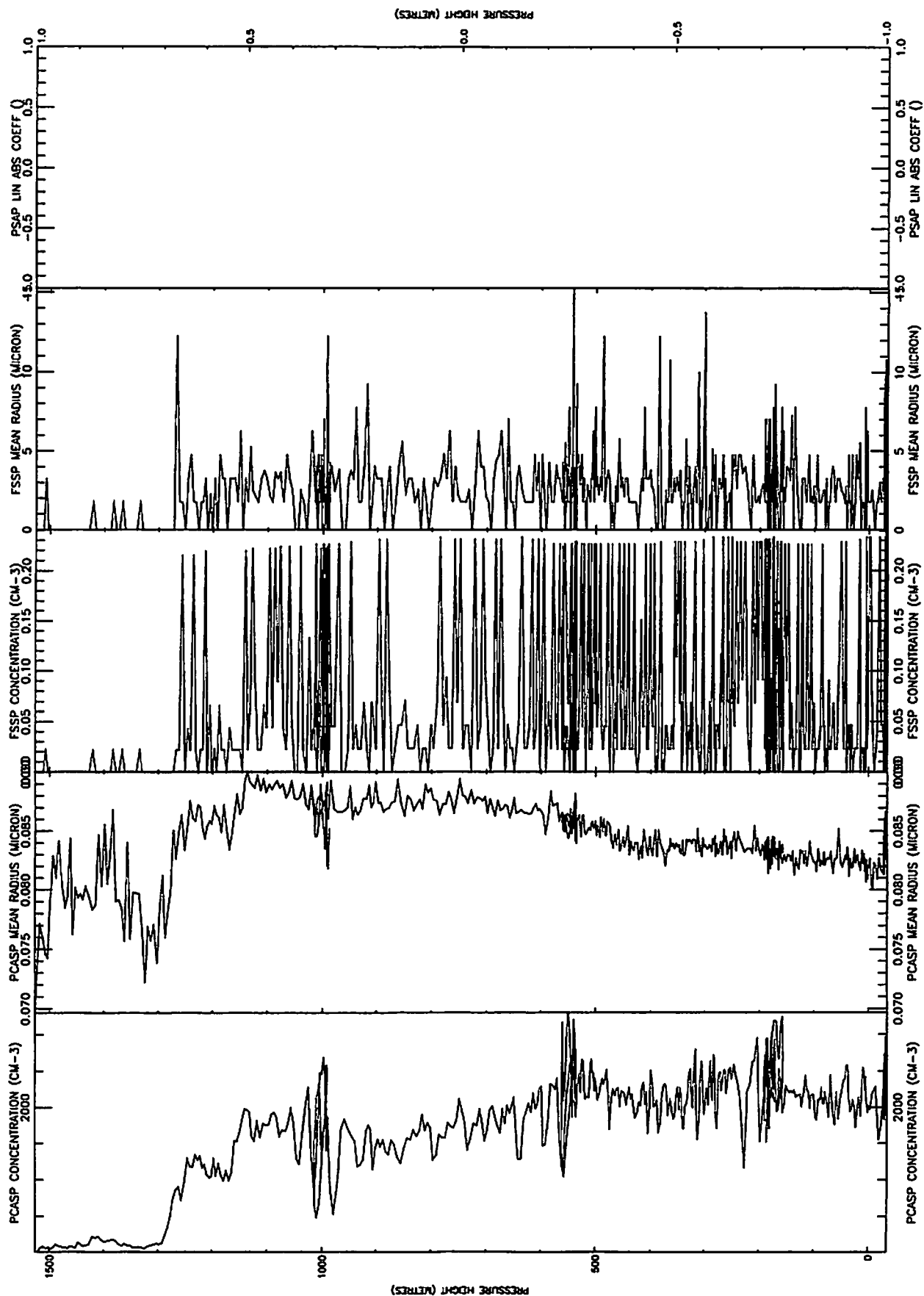
HEADING (DEG)

Mean 22.6184

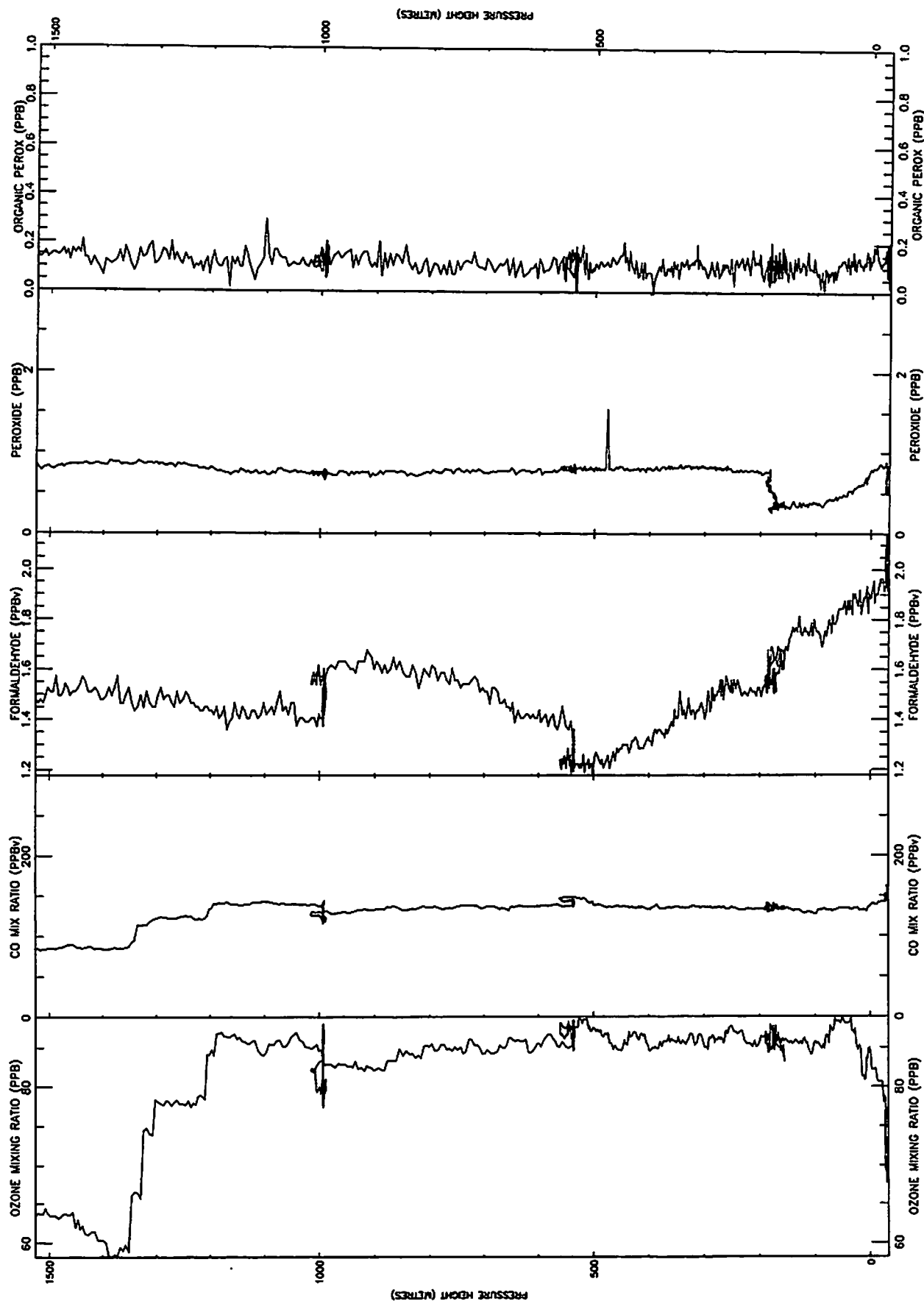
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:32



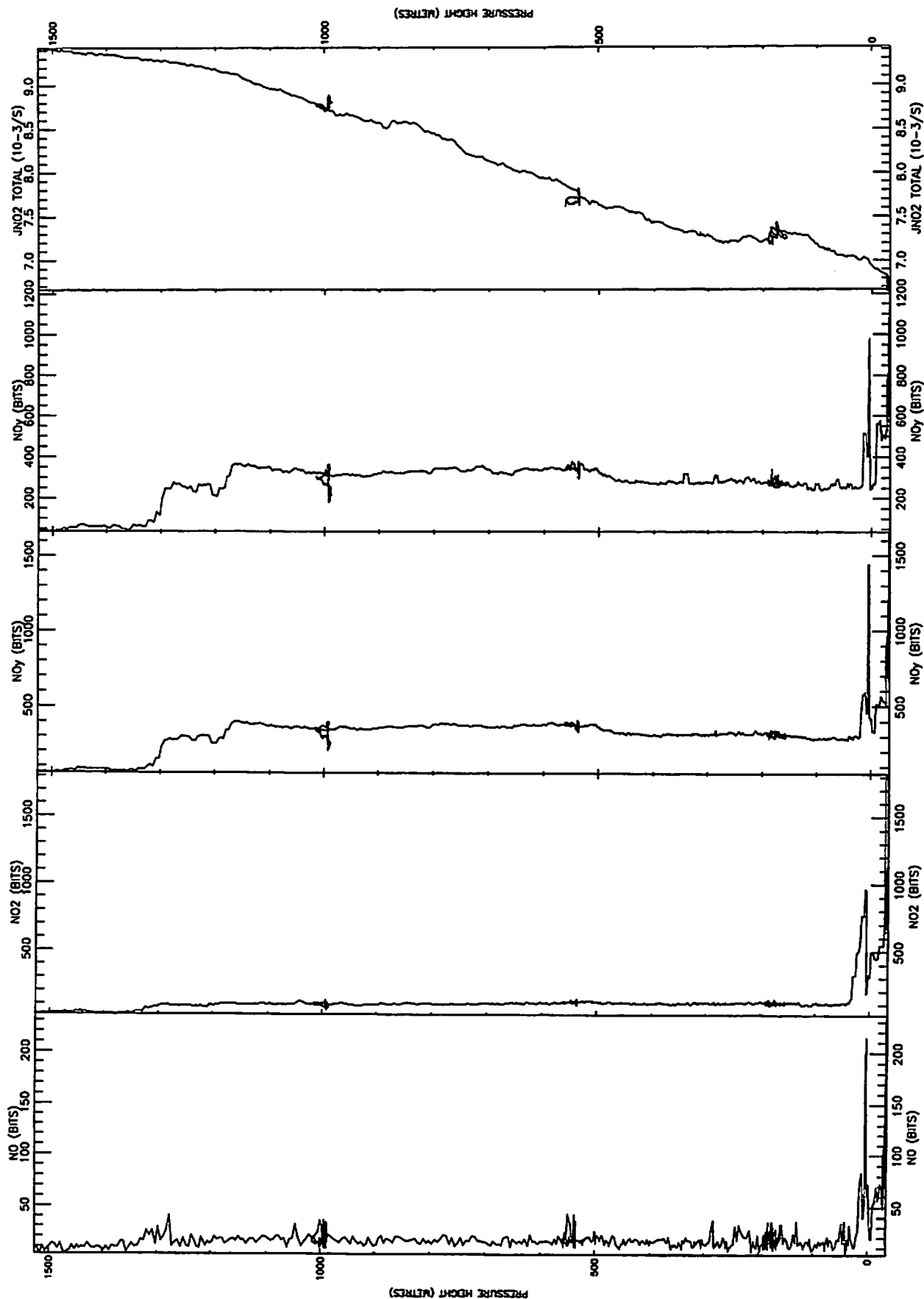
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:32



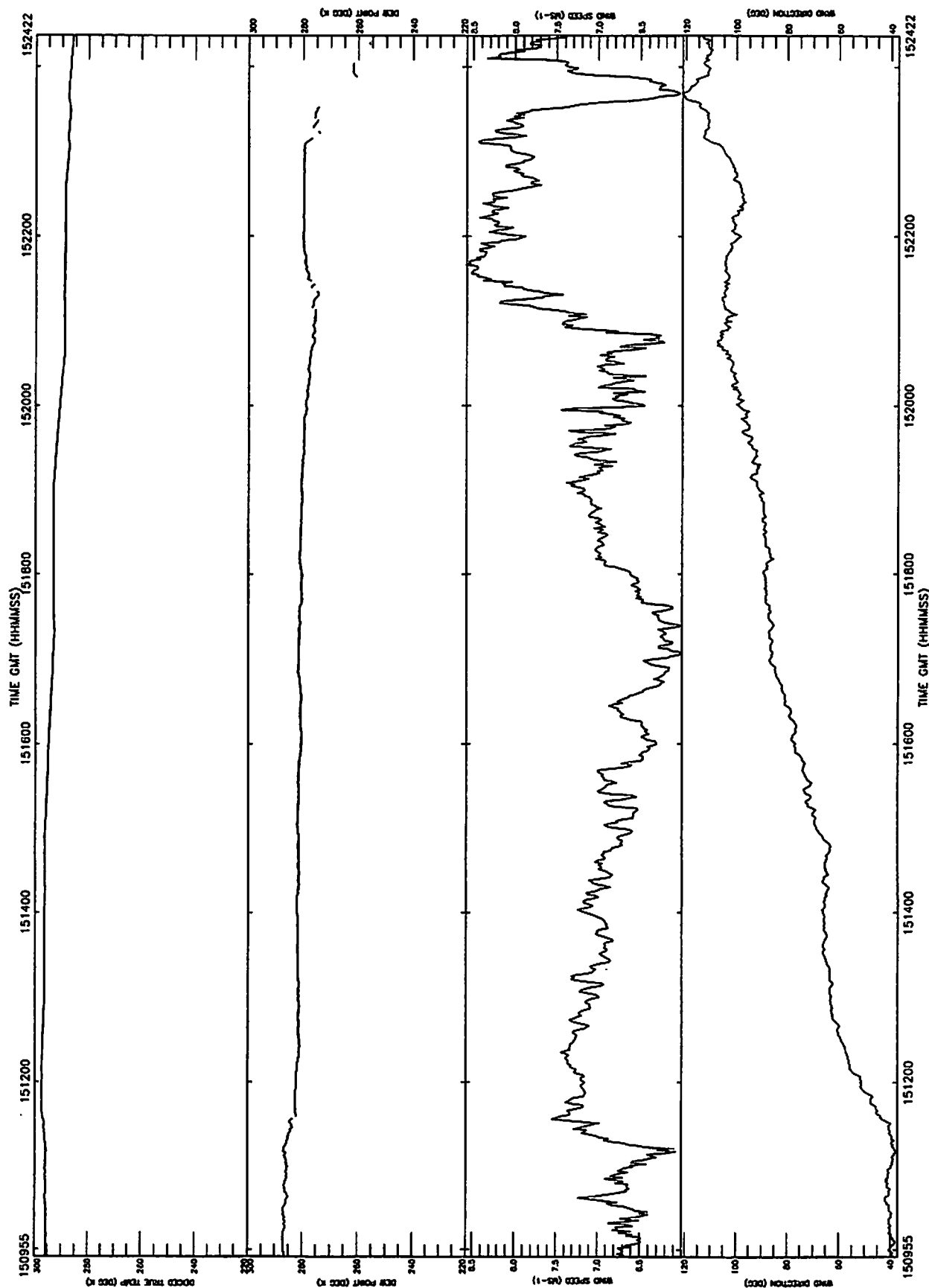
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:32



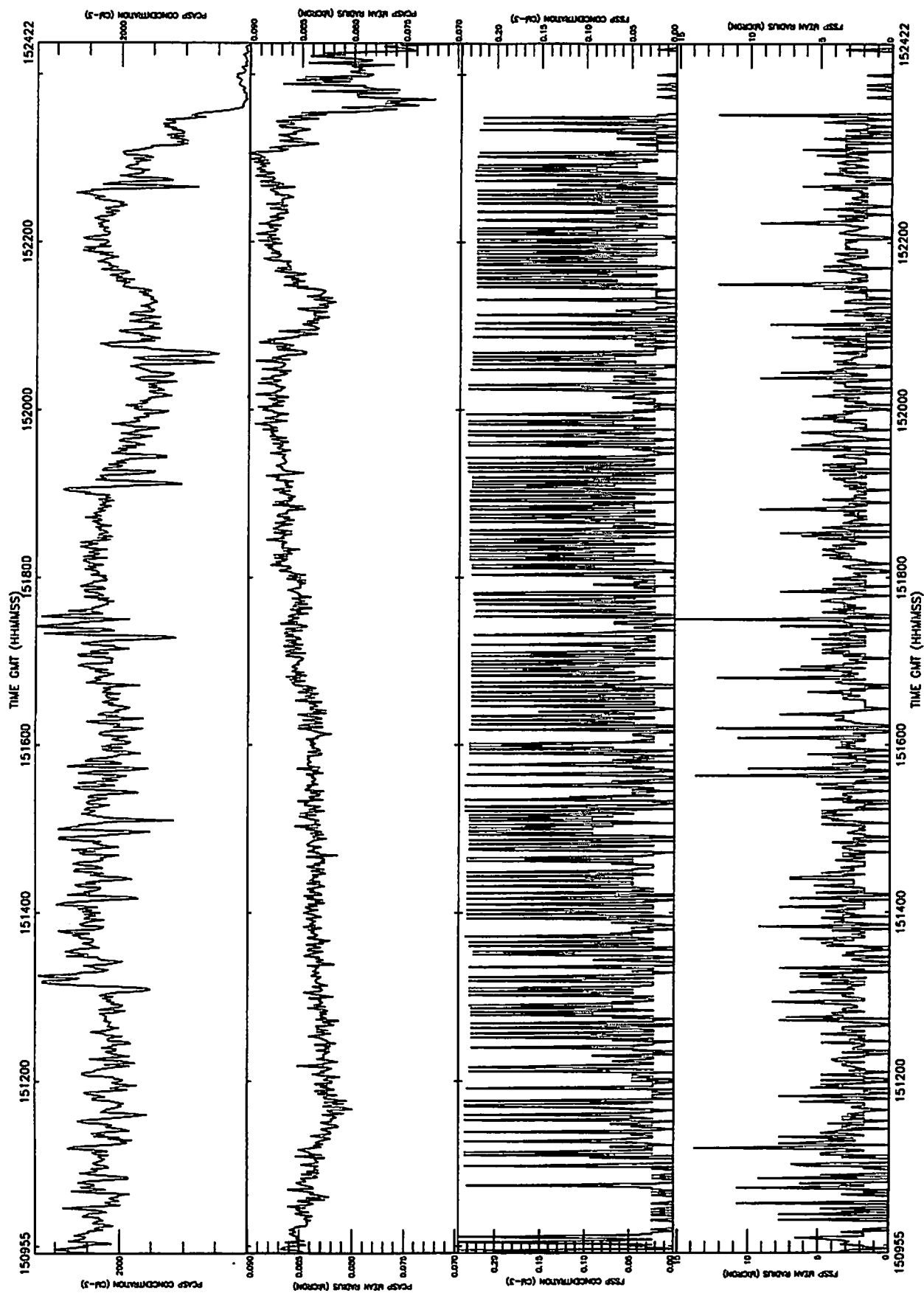
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:32



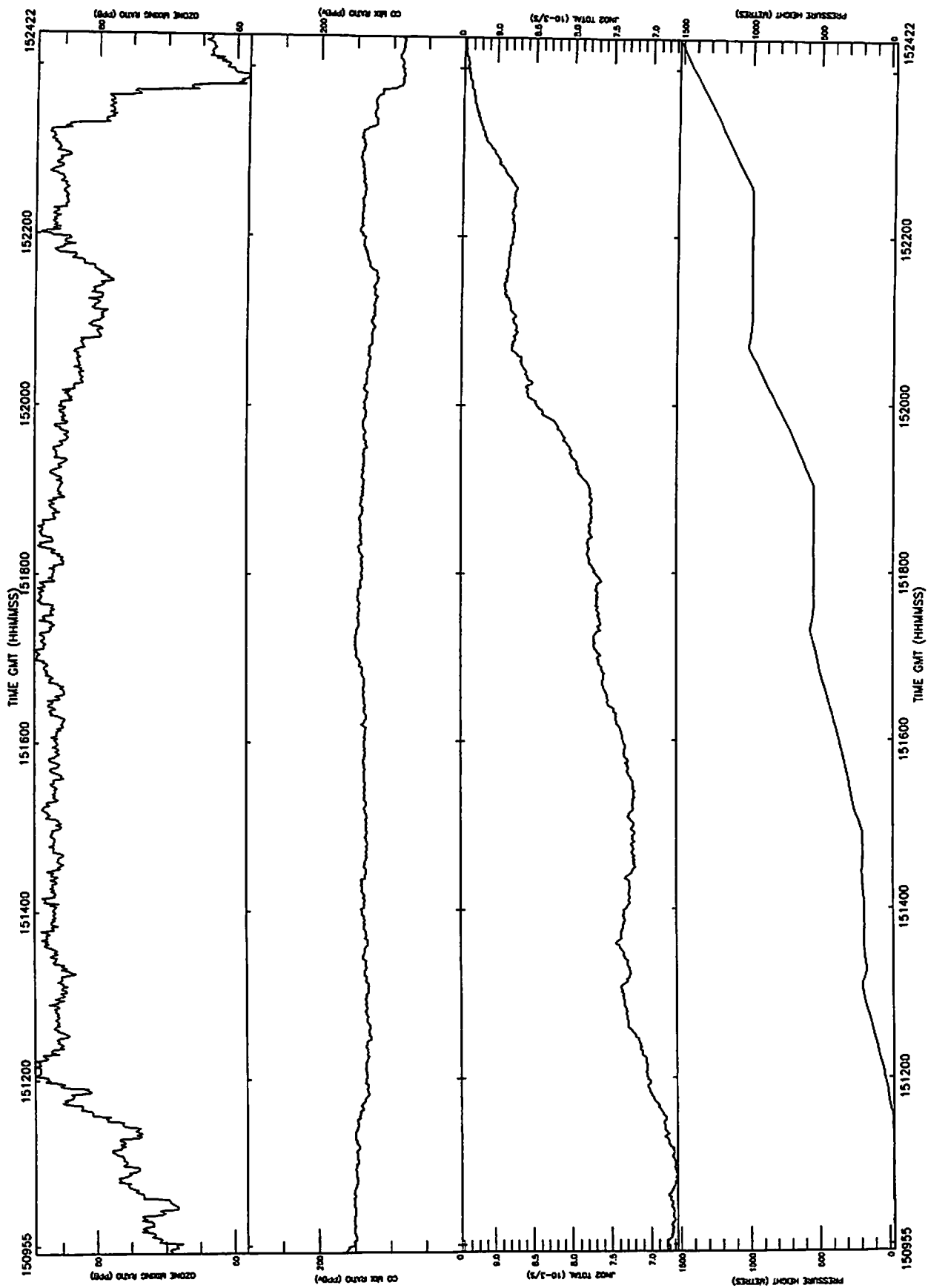
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 *Plotted* 9-Dec-1997 16:33



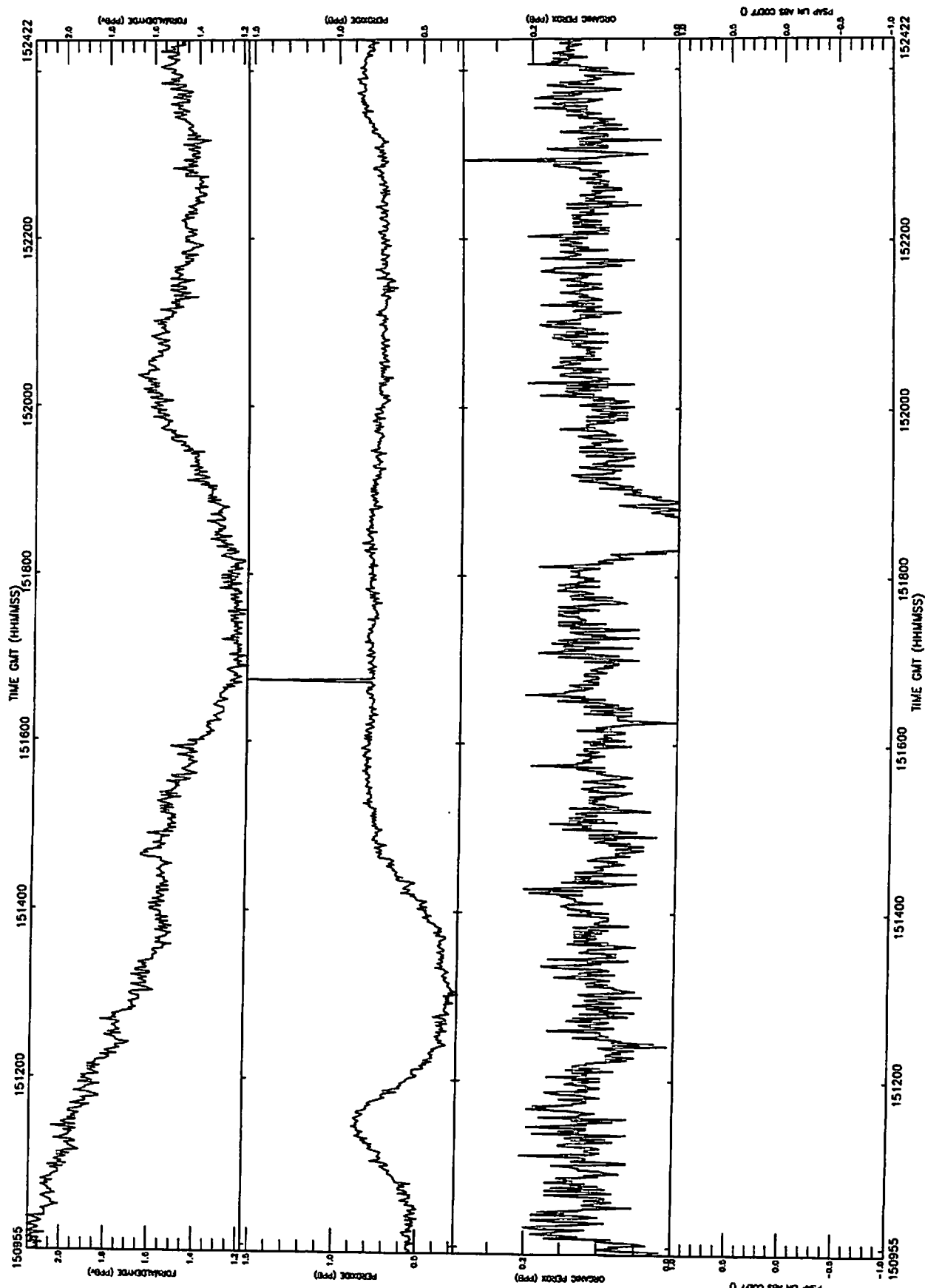
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:33



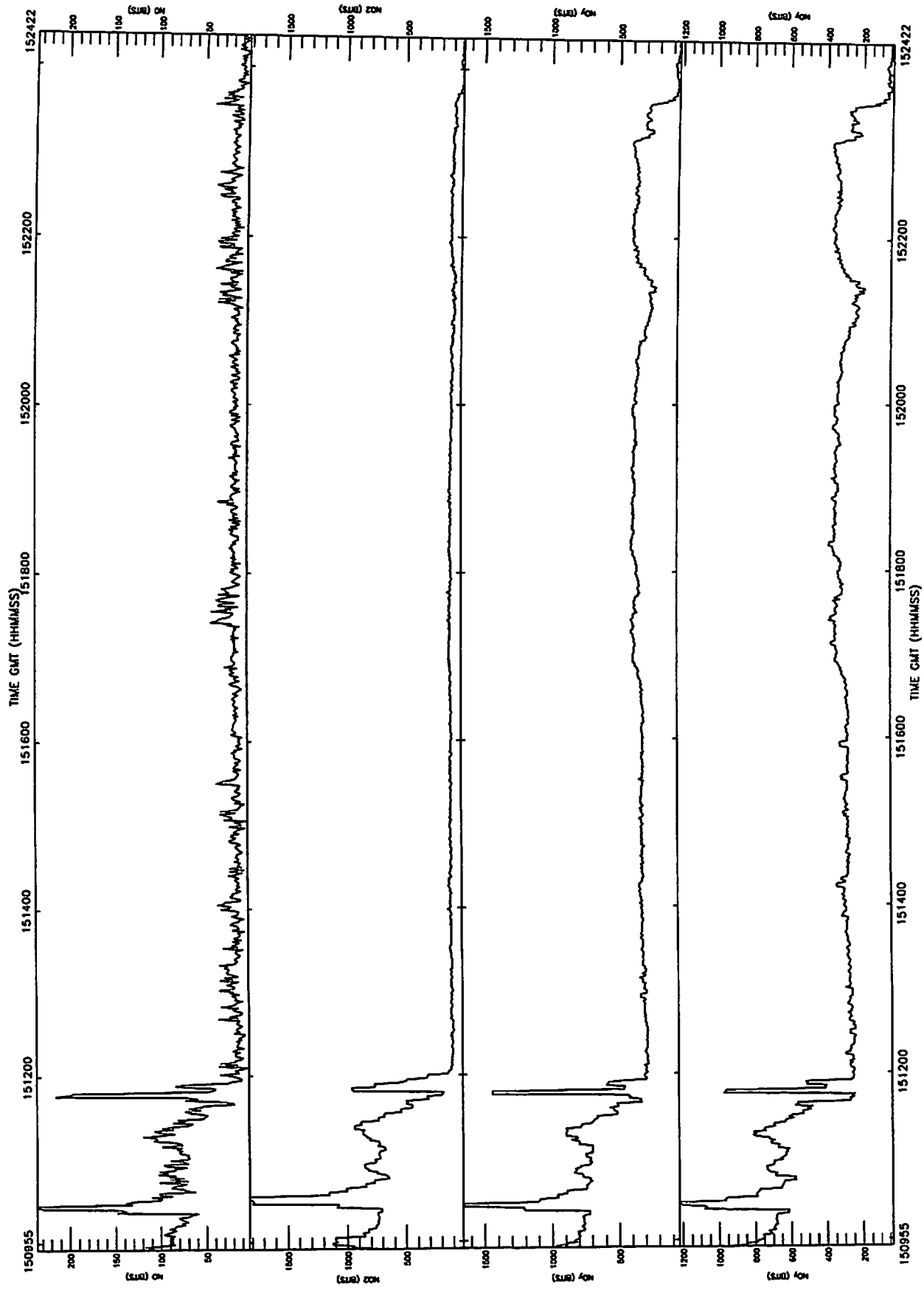
A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:33



A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:33



A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 Plotted 9-Dec-1997 16:33



A572 19-AUG-97 R25-R28,P26-P29 100'-FL050 From 150955-152422 *Plotted* 9-Dec-1997 16:33

STATIC PRESSURE (MB)

No of obs 868
Mean 952.473
Standard dev 48.7282
Max value 1017.25
Min value 842.862

DEICED TRUE TEMP (DEG K)

No of obs 868
Mean 292.971
Standard dev 3.40052
Max value 297.291
Min value 285.924

DEW POINT (DEG K)

No of obs 868
Mean 279.757
Standard dev 5.29778
Max value 287.140
Min value 254.602

OZONE MIXING RATIO (PPB)

No of obs 868
Mean 82.6372
Standard dev 6.33059
Max value 88.9473
Min value 58.1688

PCASP CONCENTRATION (CM-3)

No of obs 868
Mean 2010.77
Standard dev 630.427
Max value 3297.86
Min value 6.00019

FSSP CONCENTRATION (CM-3)

No of obs 868
Mean 7.092306e-02
Standard dev 8.350944e-02
Max value 0.240751
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 868
Mean 527.612
Standard dev 430.521
Max value 1526.01
Min value -33.2457

CORRECTED LATITUDE (DEGREES)

No of obs 868
Mean 52.5273
Standard dev 0.187684
Max value 52.8721
Min value 52.2088

CORRECTED LONGITUDE (DEGREES)

No of obs 868
Mean 3.74817
Standard dev 0.153855
Max value 3.96798
Min value 3.48846

NORTHWARD WIND COMPT (M S-1)

No of obs 868
Mean -1.01964
Standard dev 2.57605
Max value 3.20118
Min value -5.51077

EASTWARD WIND COMPT (M S-1)

No of obs 868
Mean -6.44191
Standard dev 1.00857
Max value -3.67952
Min value -8.30928

VERTICAL WIND COMPT (M S-1)

No of obs 868
Mean -0.287186
Standard dev 0.256469
Max value 0.380035
Min value -0.967316

WIND SPEED (MS-1)

No of obs 868
Mean 7.05993
Standard dev 0.583123
Max value 8.57669
Min value 6.00556

WIND DIRECTION (DEG)

Mean 81.0057

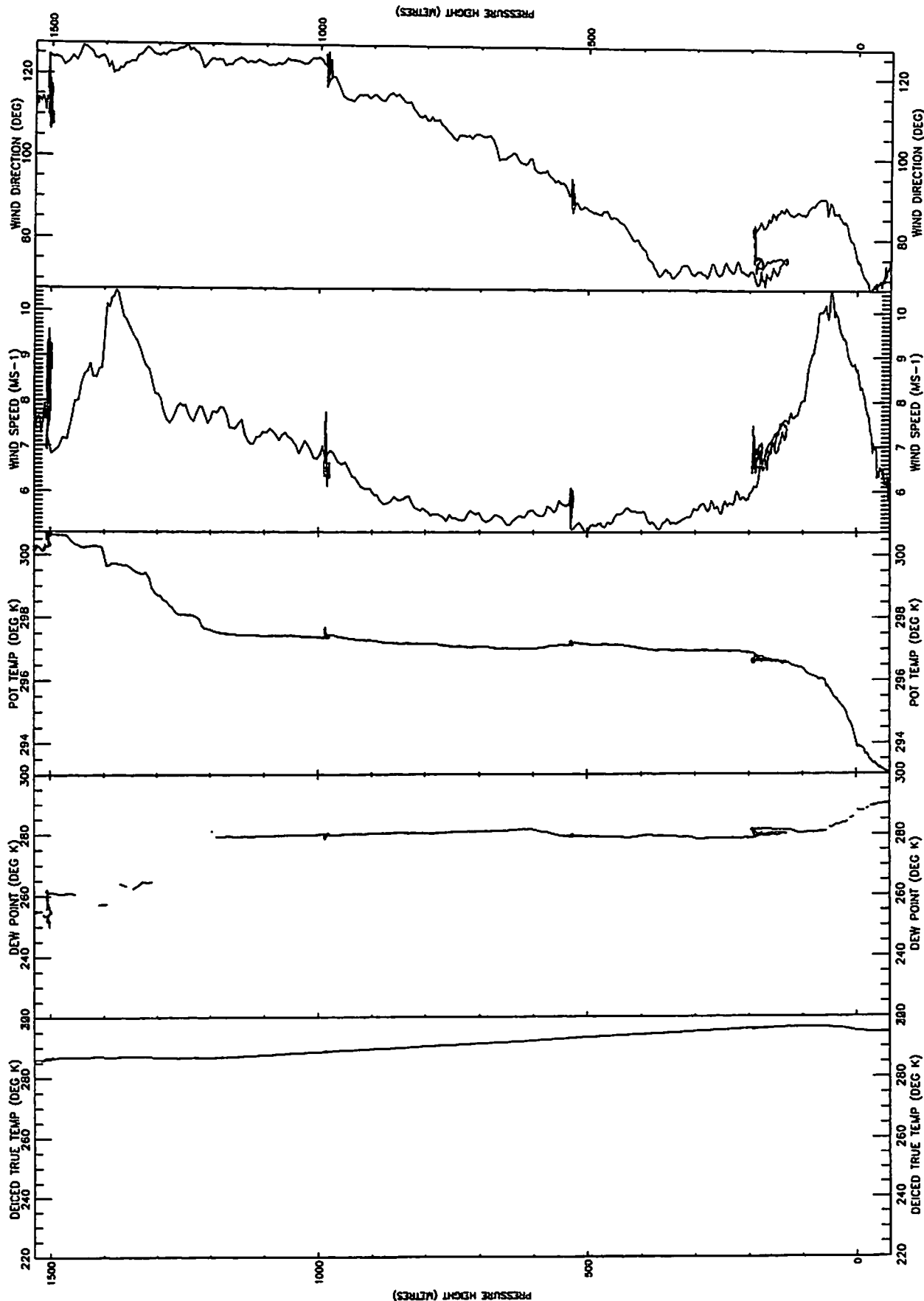
TRUE AIR SPEED (M S-1)

No of obs 868
Mean 97.4679
Standard dev 2.54831
Max value 105.359
Min value 91.3131

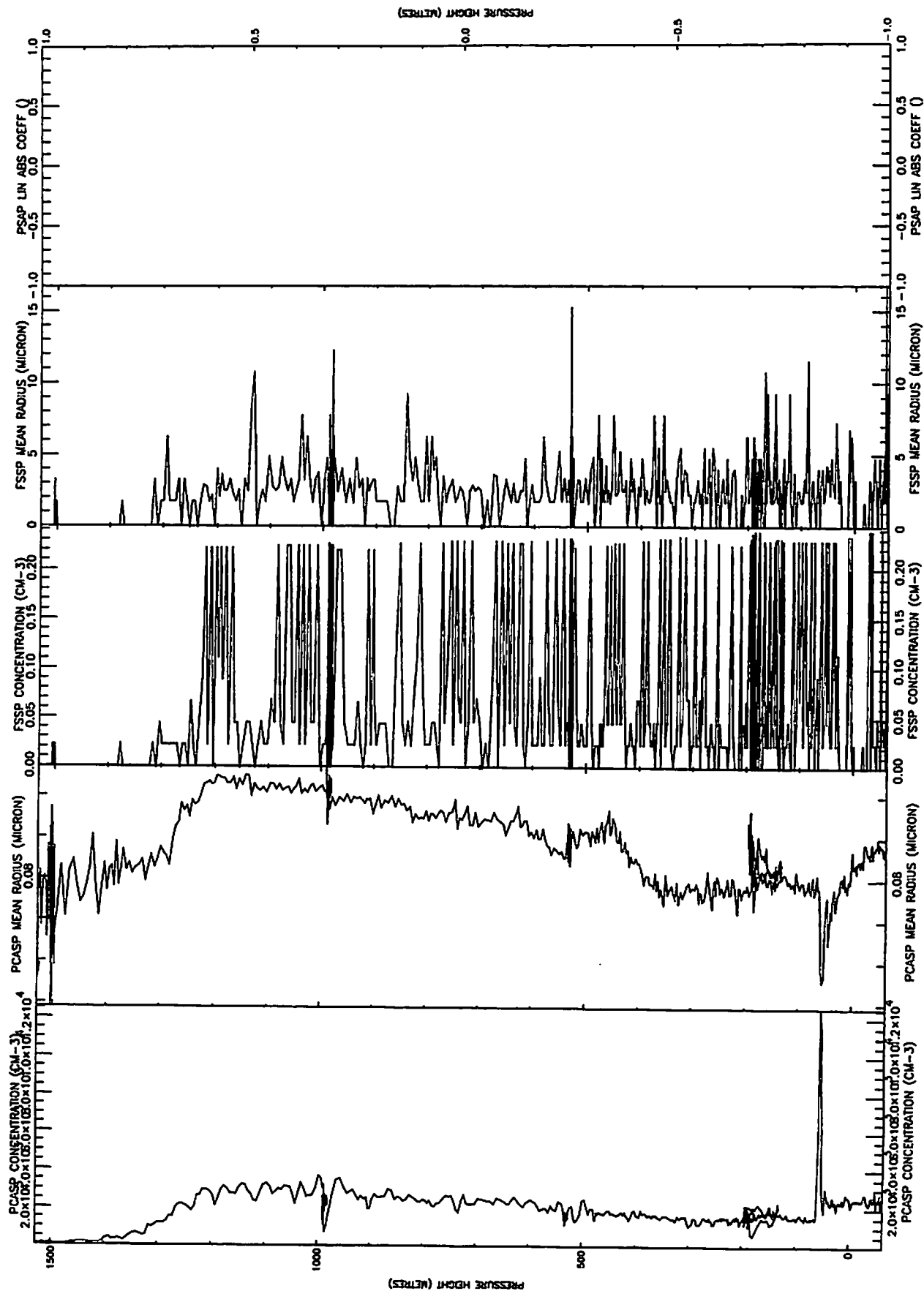
HEADING (DEG)

Mean 23.7848

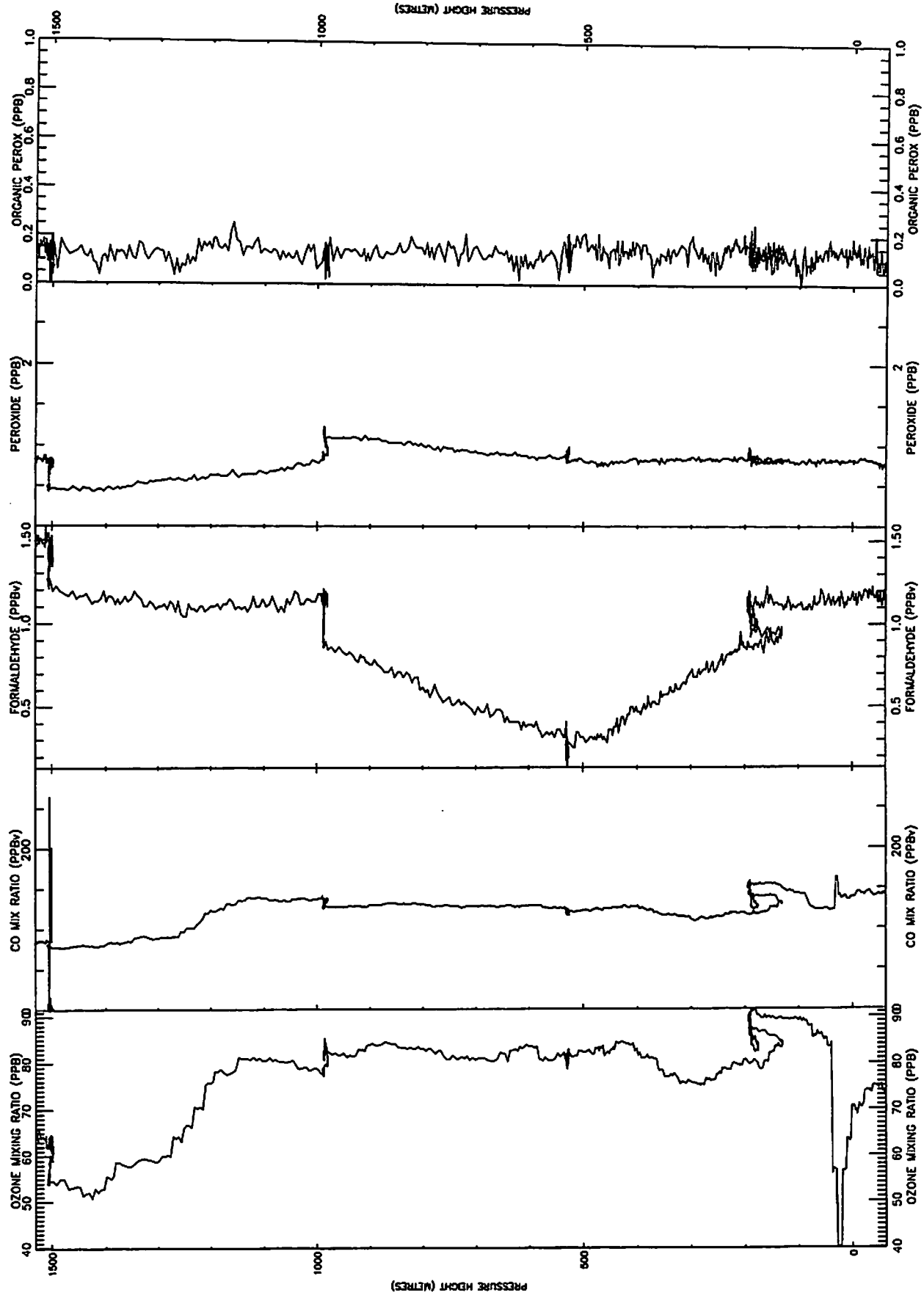
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 9-Dec-1997 16:39



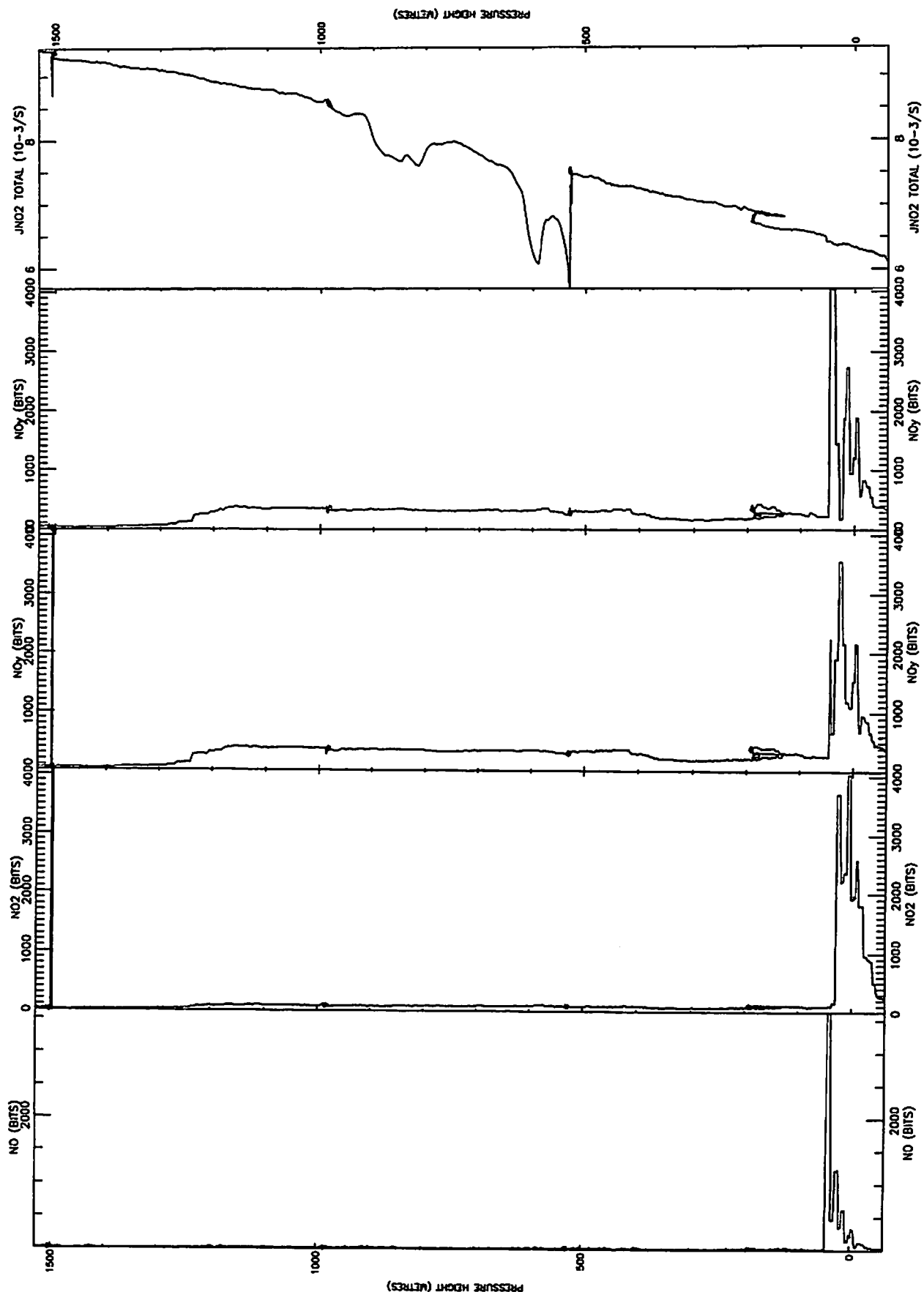
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 12-Dec-1997 16:49



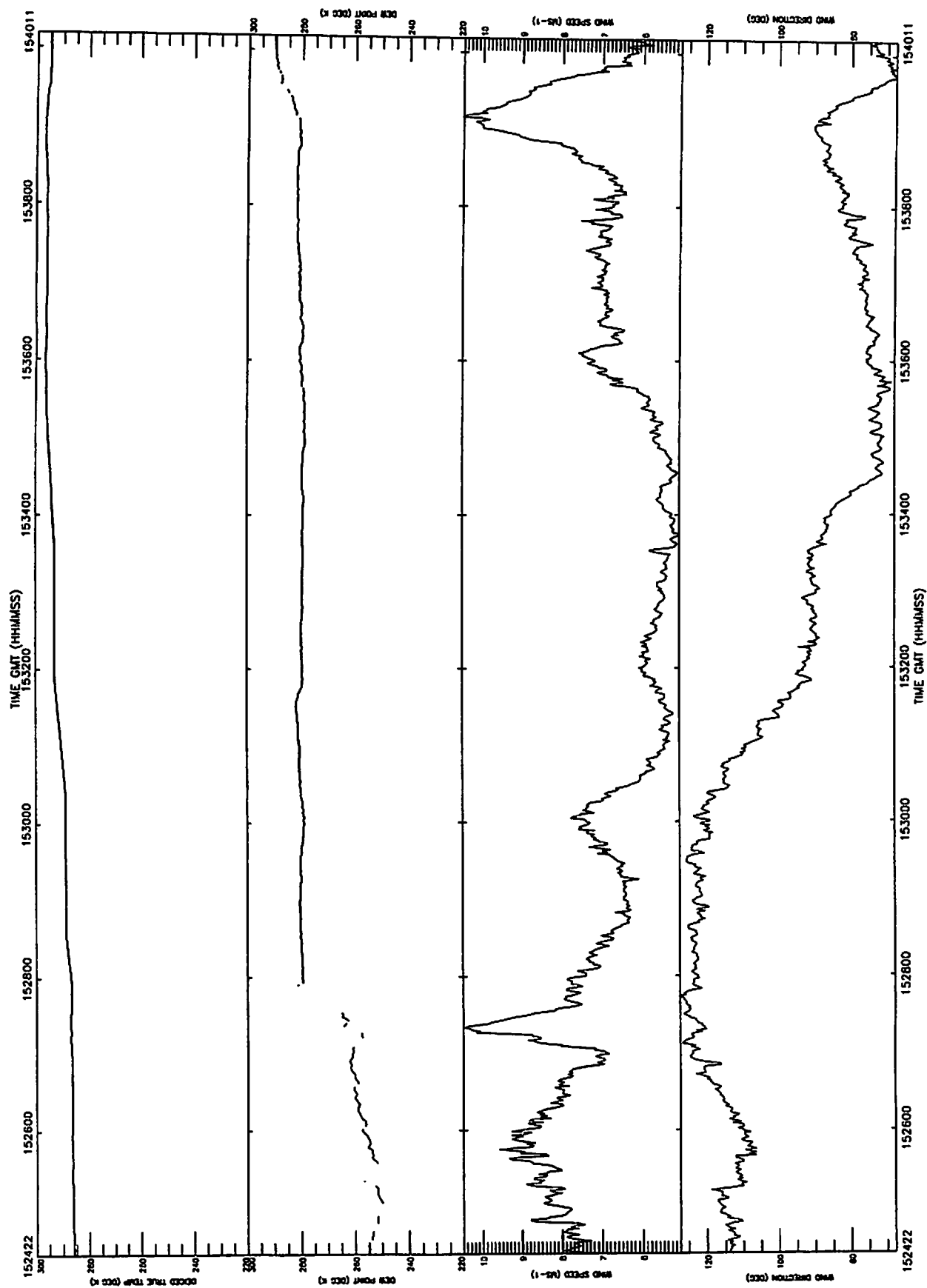
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 *Plotted* 9-Dec-1997 16:39



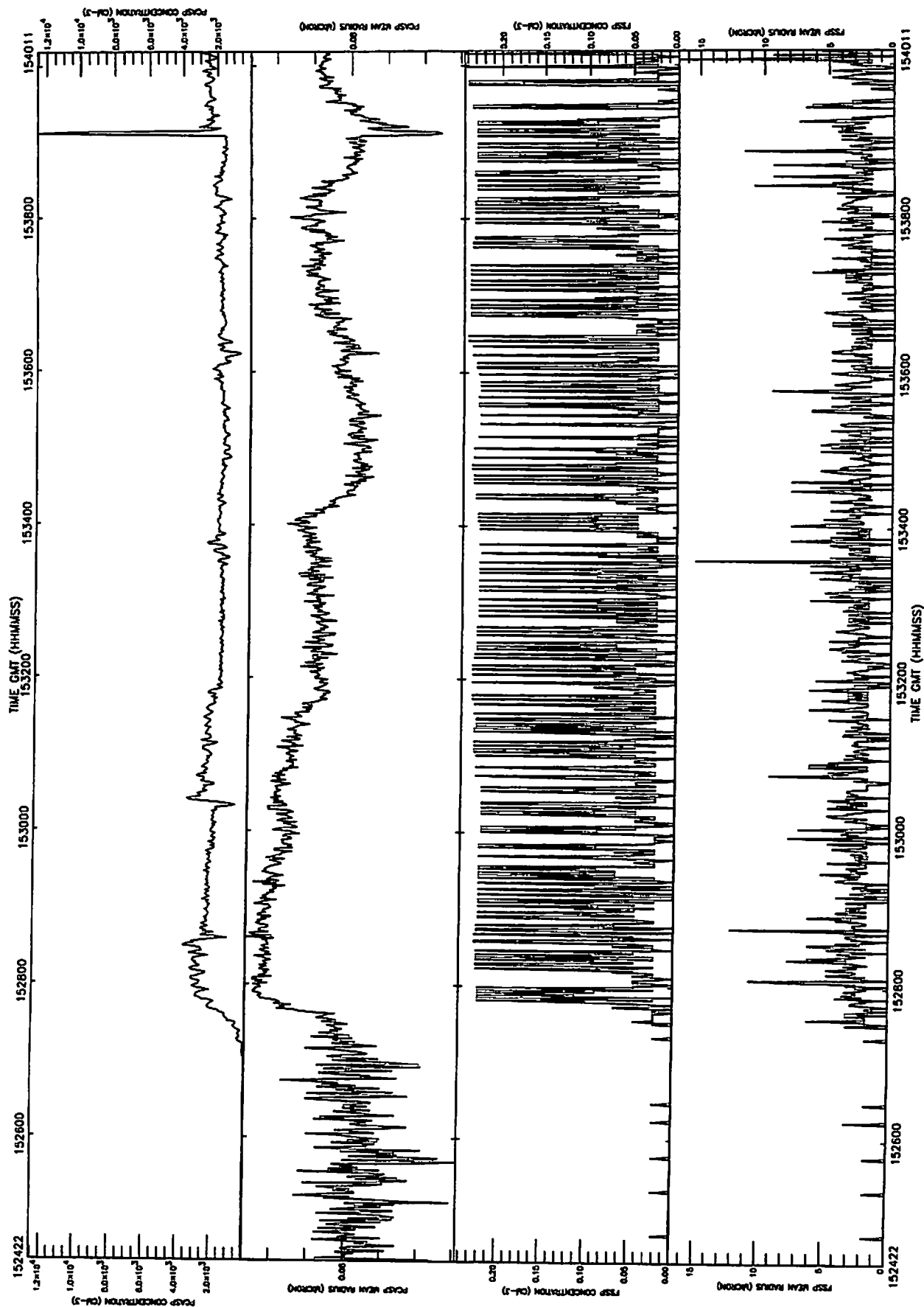
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 *Plotted* 9-Dec-1997 16:39



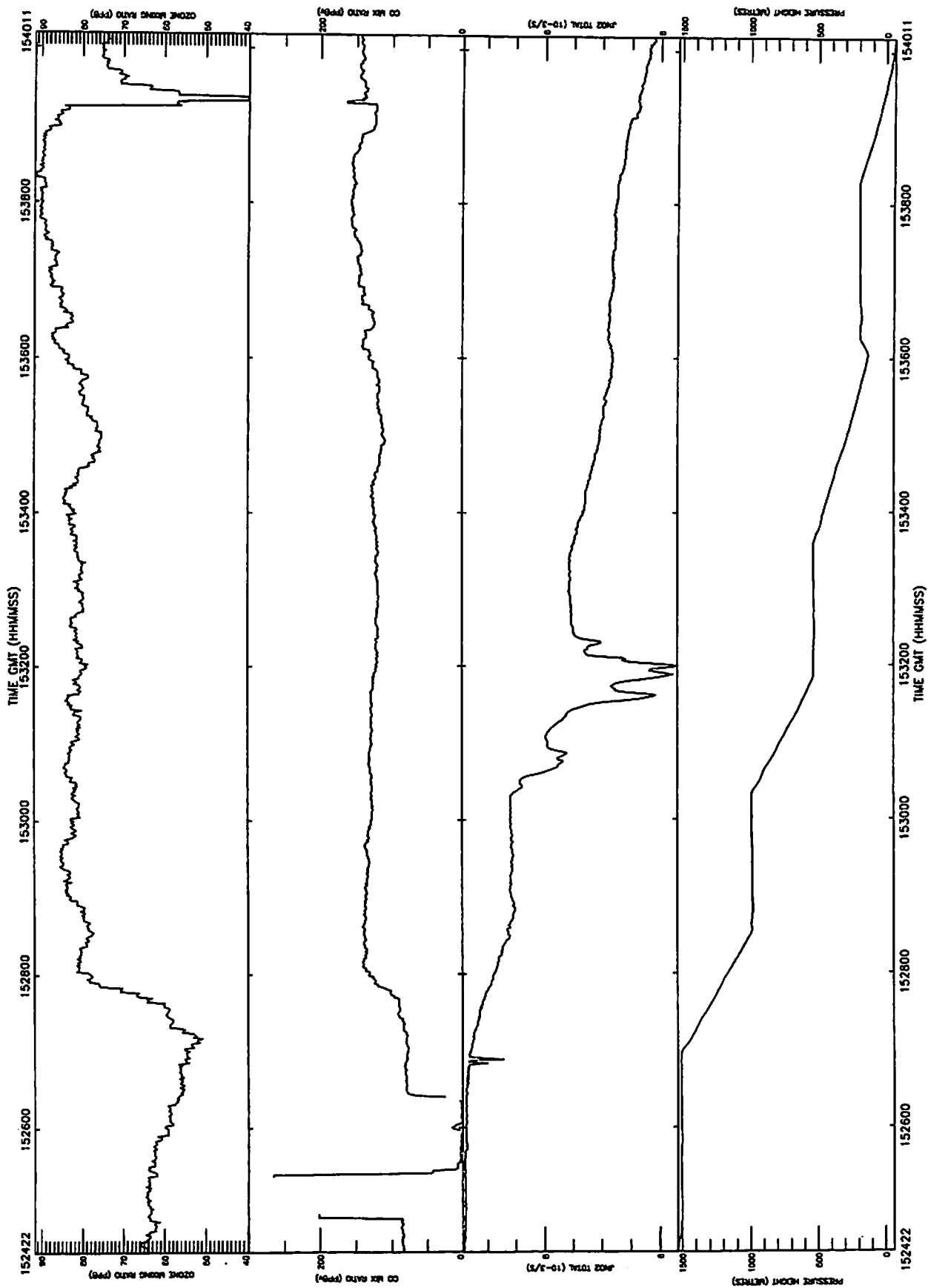
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 9-Dec-1997 16:39



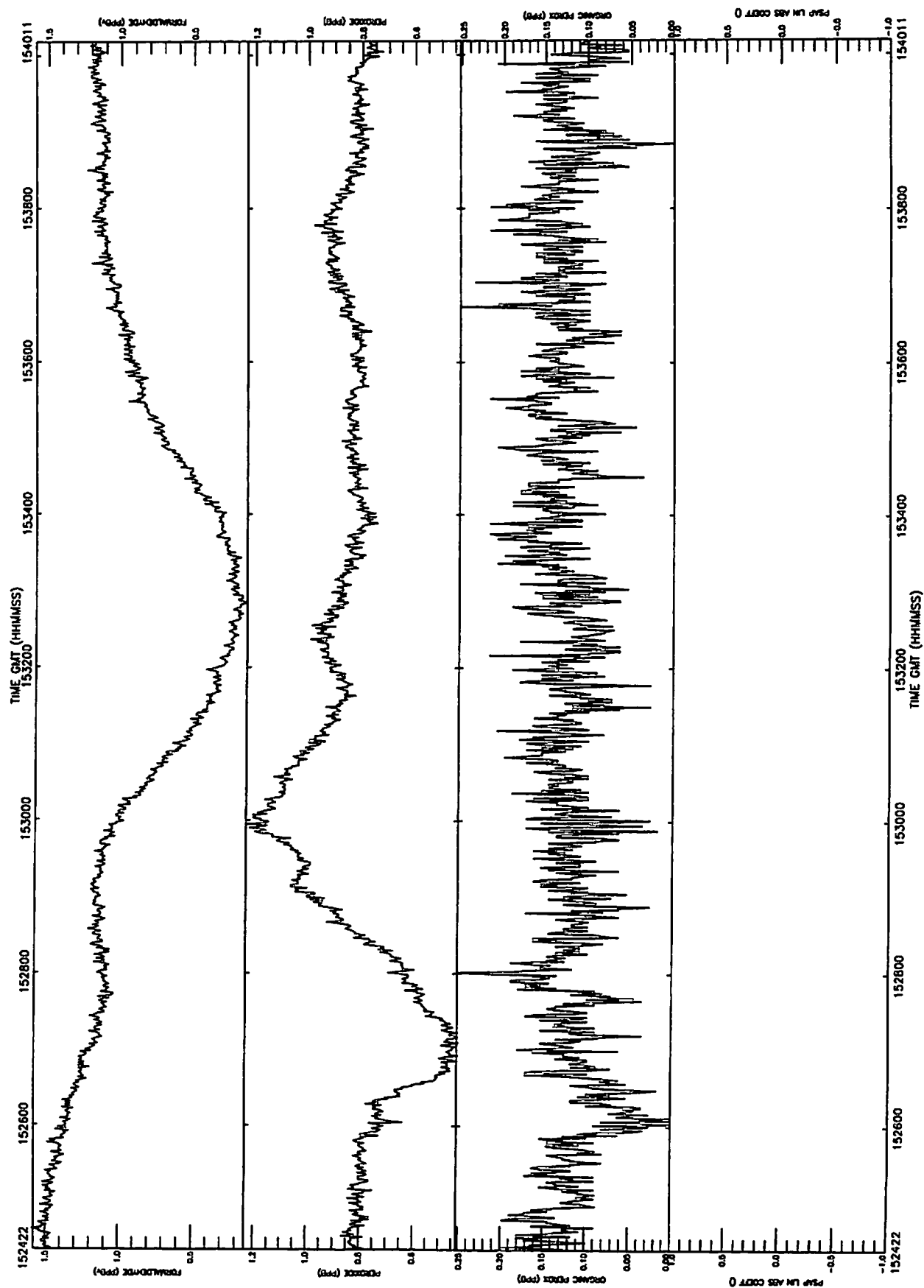
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 12-Dec-1997 16:49



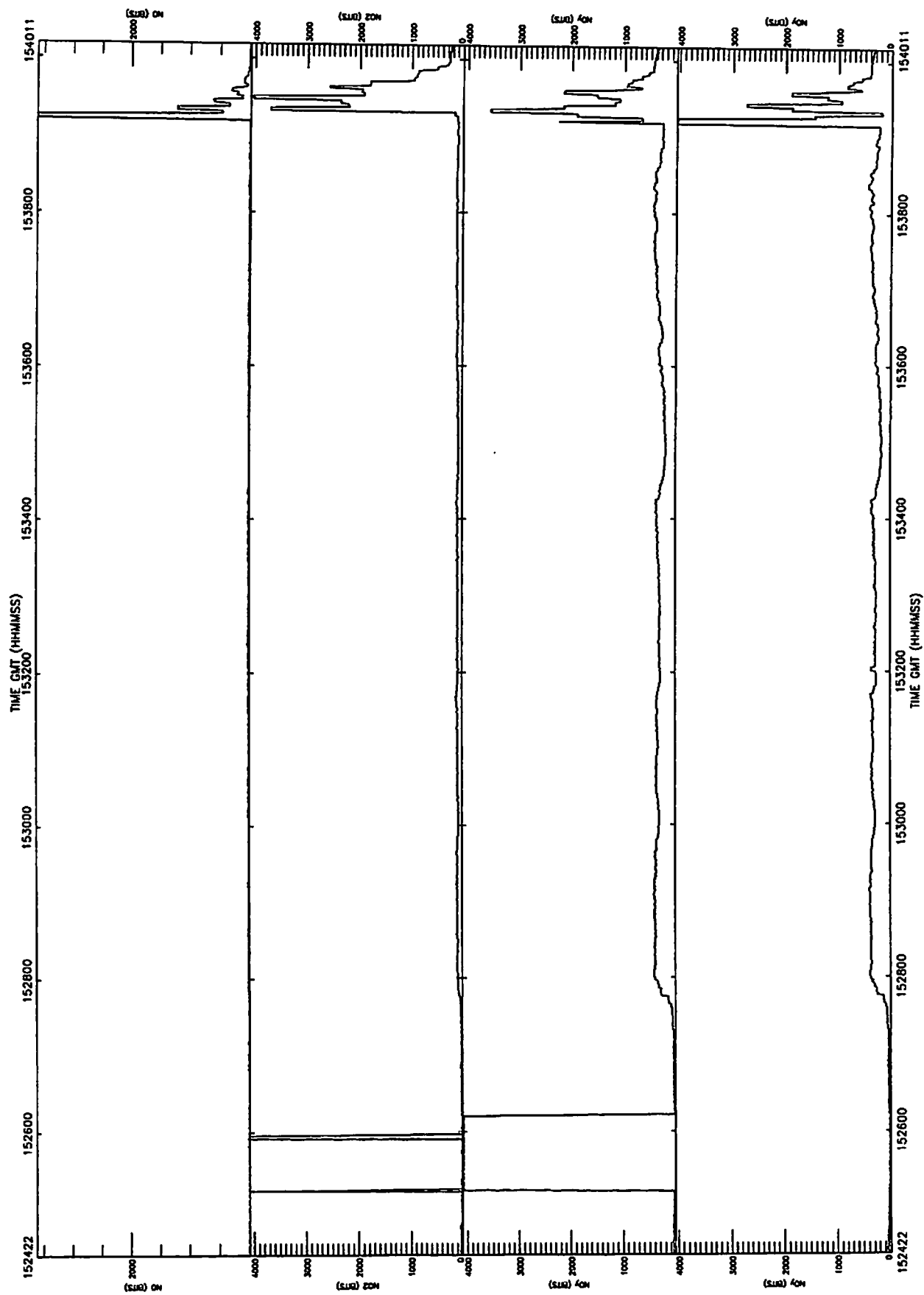
A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 9-Dec-1997 16:39



A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 9-Dec-1997 16:39



A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 Plotted 9-Dec-1997 16:39



A572 19-AUG-97 R29-R32,P30-P33 FL050-50' From 152422-154011 *Plotted 12-Dec-1997 16:49*

STATIC PRESSURE (MB)

No of obs 950
Mean 934.017
Standard dev 57.5654
Max value 1020.73
Min value 842.374

DEICED TRUE TEMP (DEG K)

No of obs 950
Mean 291.648
Standard dev 3.78874
Max value 296.542
Min value 285.837

DEW POINT (DEG K)

No of obs 950
Mean 275.627
Standard dev 10.0685
Max value 290.445
Min value 249.812

OZONE MIXING RATIO (PPB)

No of obs 950
Mean 76.9448
Standard dev 10.5401
Max value 91.6181
Min value 39.9005

PCASP CONCENTRATION (CM-3)

No of obs 950
Mean 1609.12
Standard dev 987.360
Max value 12554.5
Min value 6.00019

FSSP CONCENTRATION (CM-3)

No of obs 950
Mean 6.062236e-02
Standard dev 8.086130e-02
Max value 0.243397
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 950
Mean 694.397
Standard dev 516.539
Max value 1530.73
Min value -62.0806

CORRECTED LATITUDE (DEGREES)

No of obs 950
Mean 53.2141
Standard dev 0.184705
Max value 53.5302
Min value 52.8721

CORRECTED LONGITUDE (DEGREES)

No of obs 950
Mean 4.32311
Standard dev 0.235196
Max value 4.71472
Min value 3.96798

NORTHWARD WIND COMPT (M S-1)

No of obs 950
Mean 0.979051
Standard dev 2.35625
Max value 5.43282
Min value -2.90057

EASTWARD WIND COMPT (M S-1)

No of obs 950
Mean -6.43479
Standard dev 1.11009
Max value -4.87626
Min value -10.4909

VERTICAL WIND COMPT (M S-1)

No of obs 950
Mean 0.403485
Standard dev 0.428426
Max value 1.33202
Min value -1.20403

WIND SPEED (MS-1)

No of obs 950
Mean 6.90348
Standard dev 1.21891
Max value 10.4927
Min value 5.09449

WIND DIRECTION (DEG)

Mean 98.6513

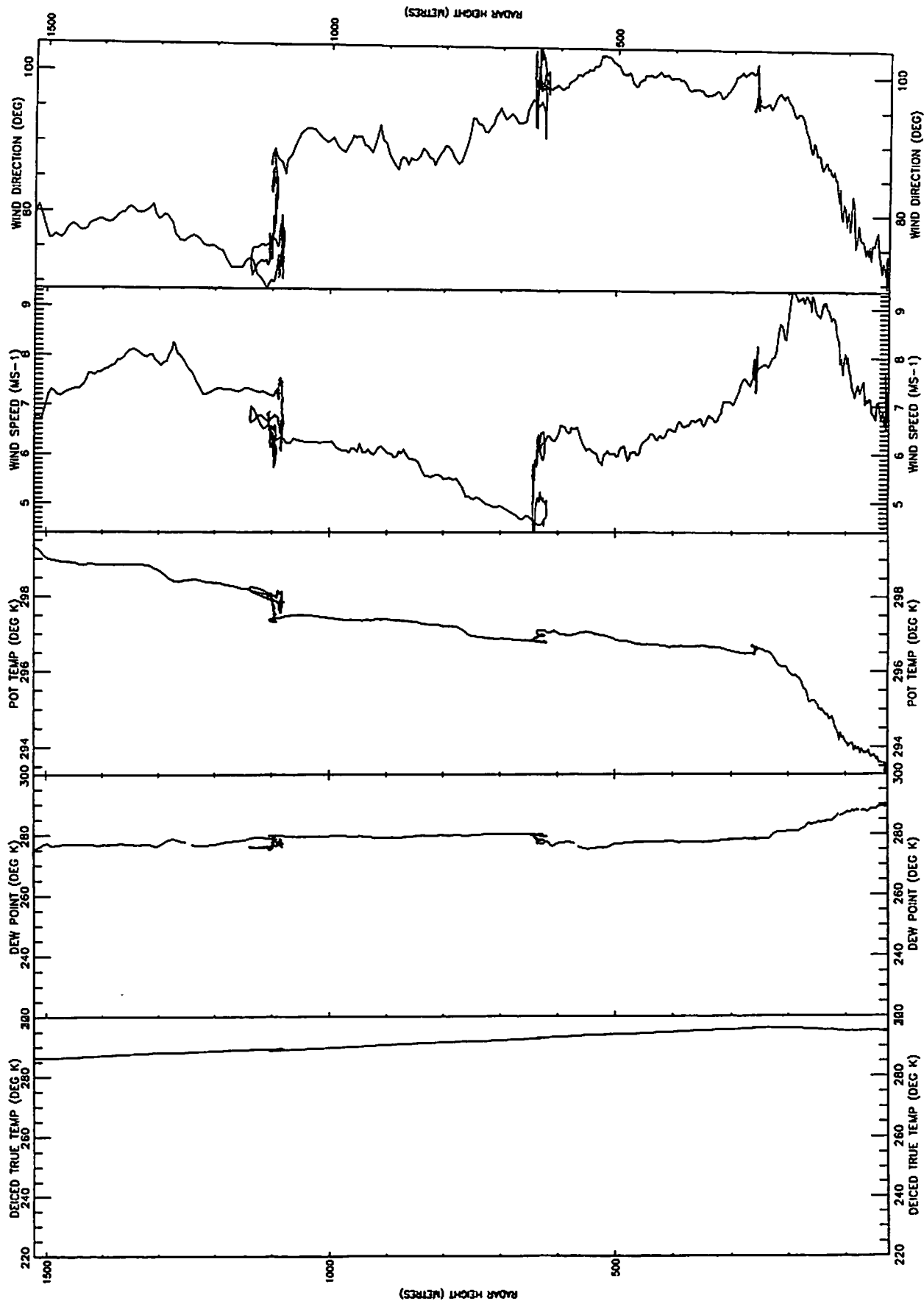
TRUE AIR SPEED (M S-1)

No of obs 950
Mean 97.9490
Standard dev 2.76187
Max value 105.328
Min value 90.5558

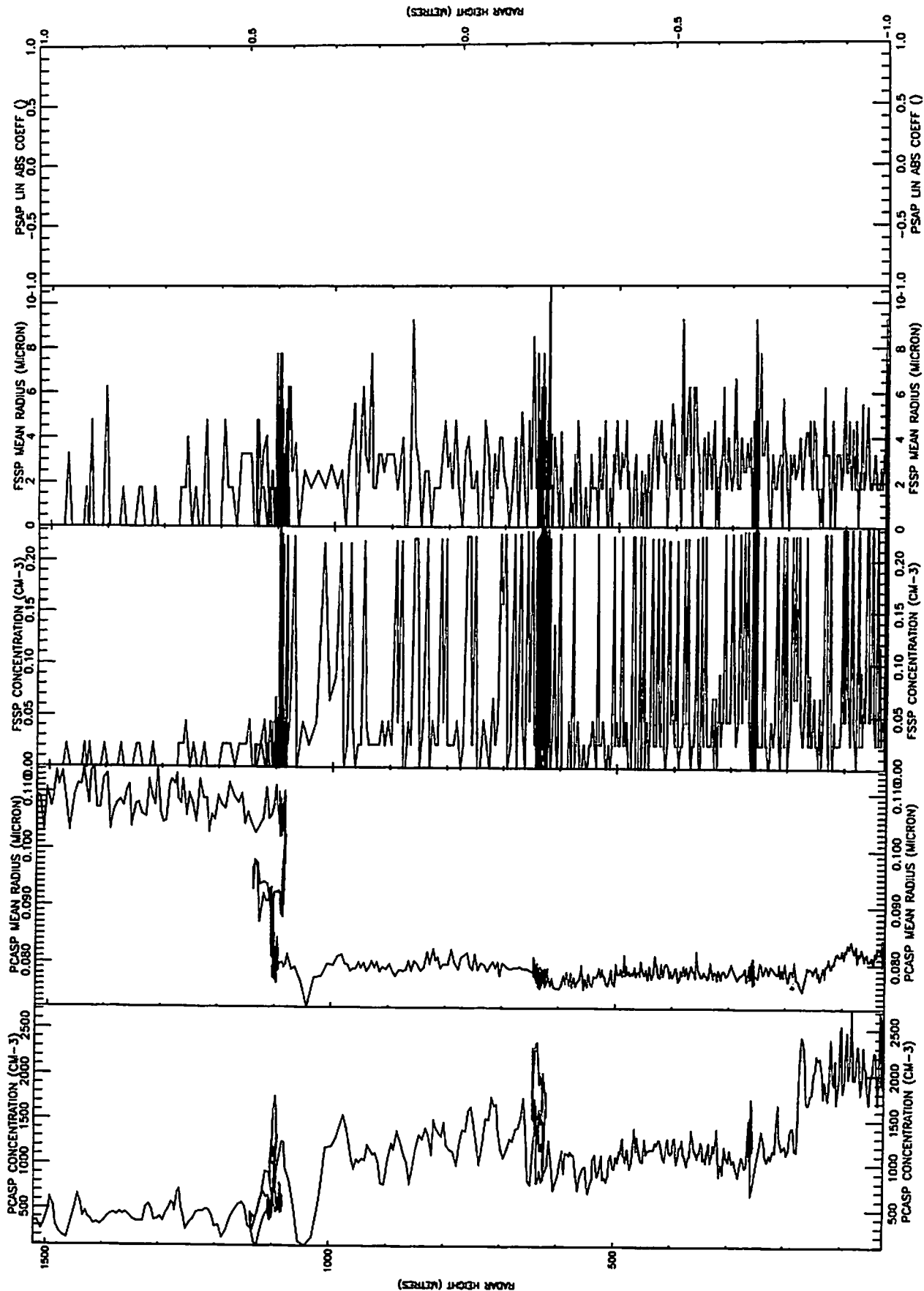
HEADING (DEG)

Mean 34.2549

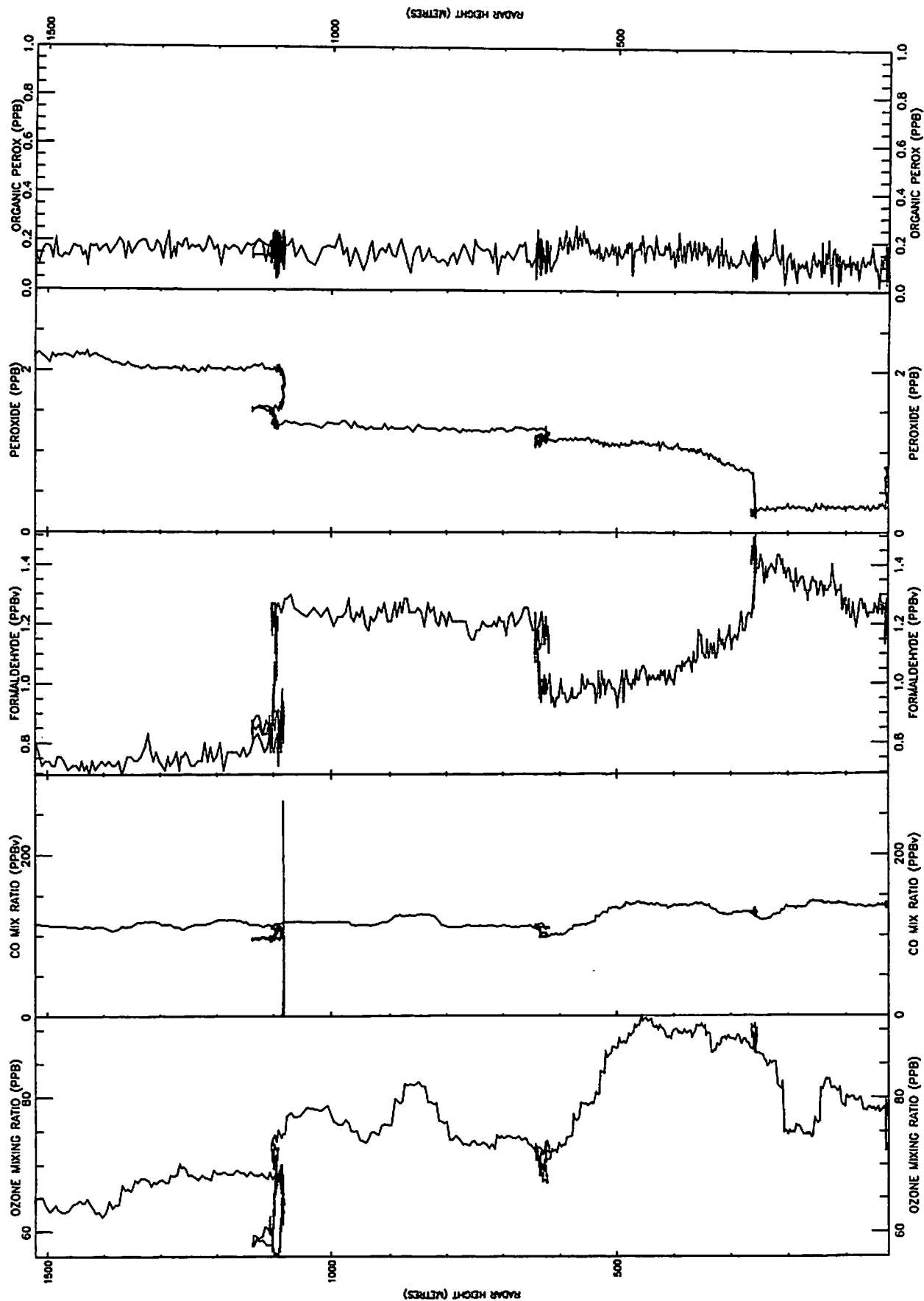
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 *Polled* 9-Dec-1997 16:46



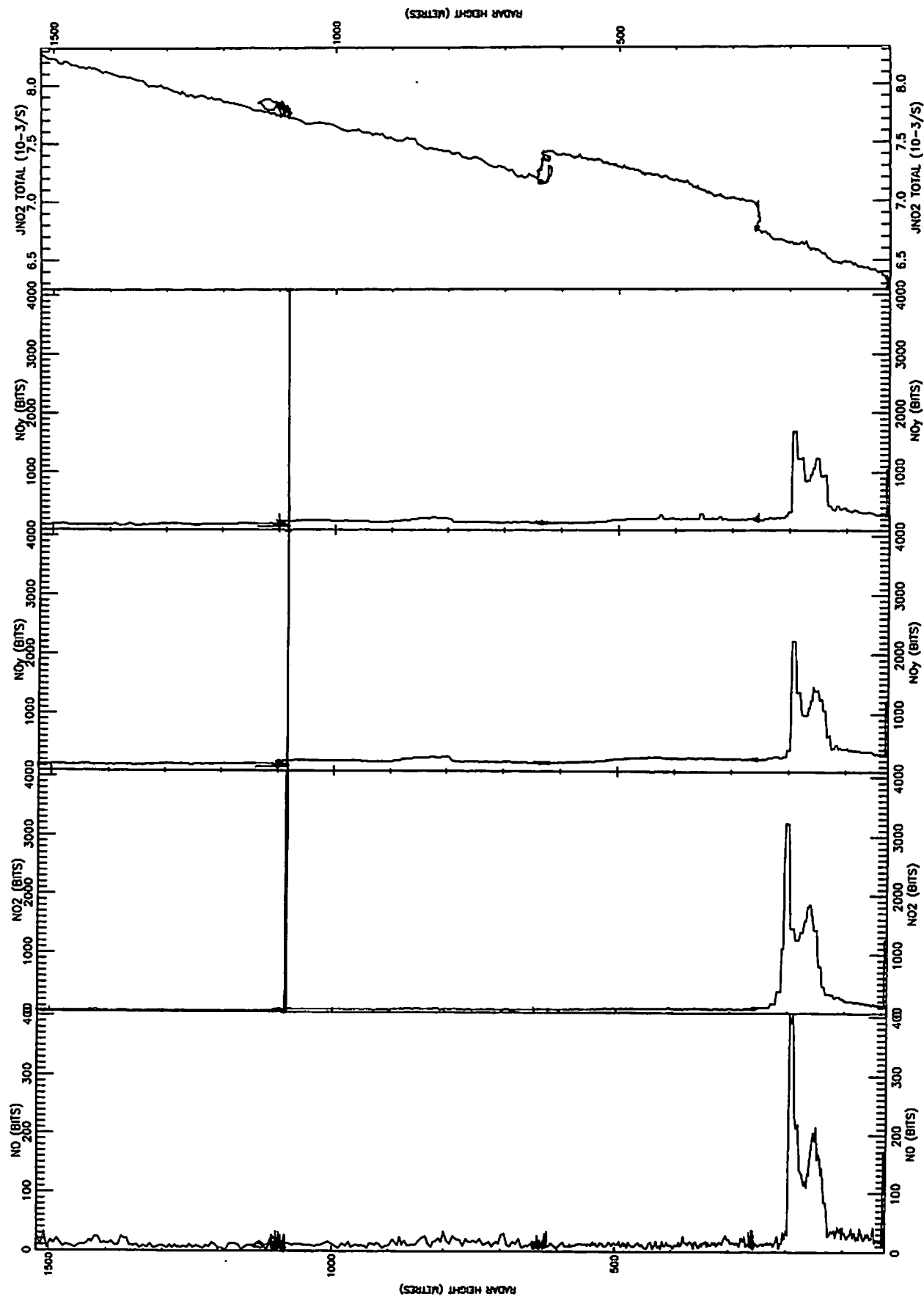
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 12-Dec-1997 16:55



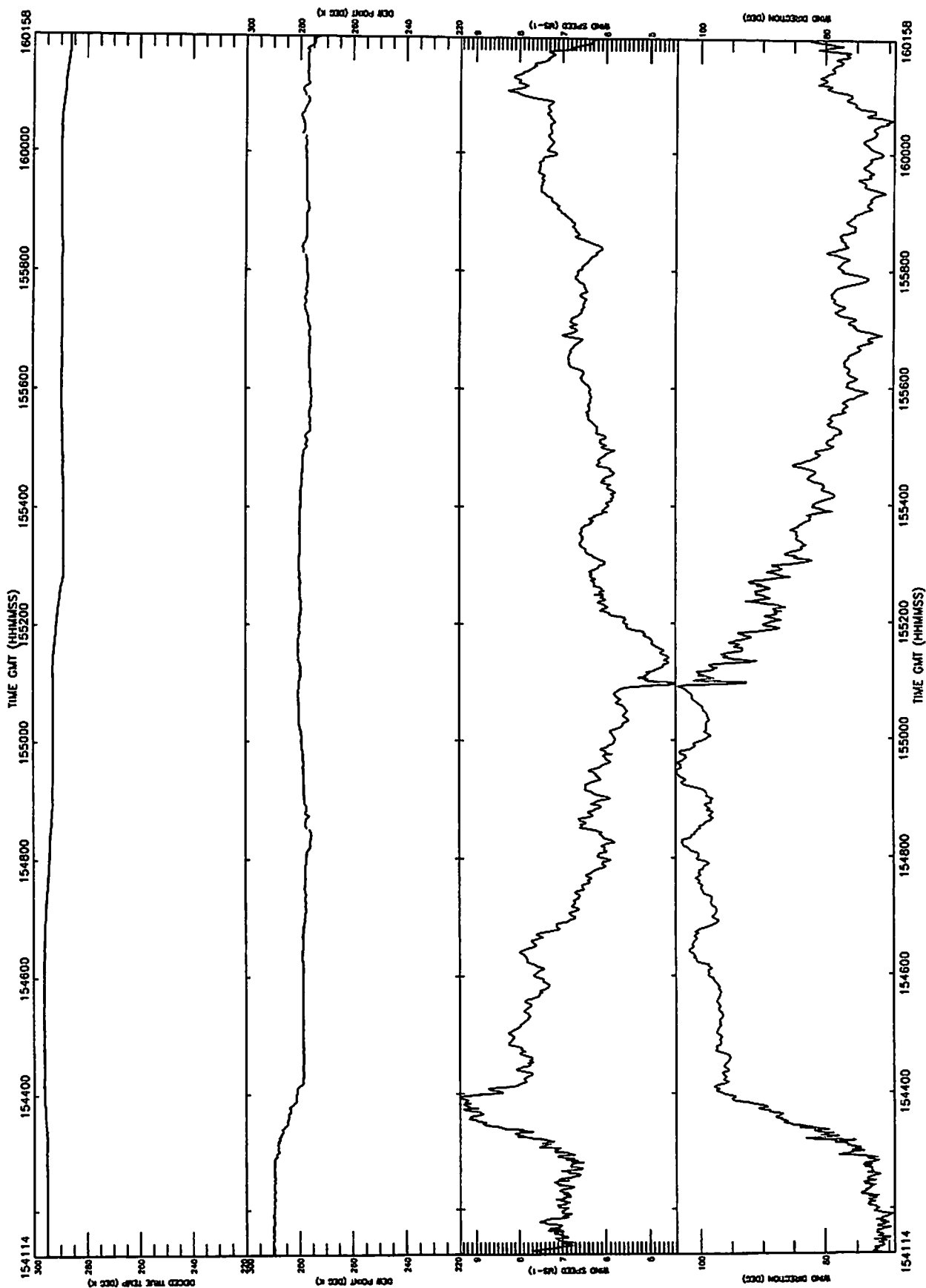
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



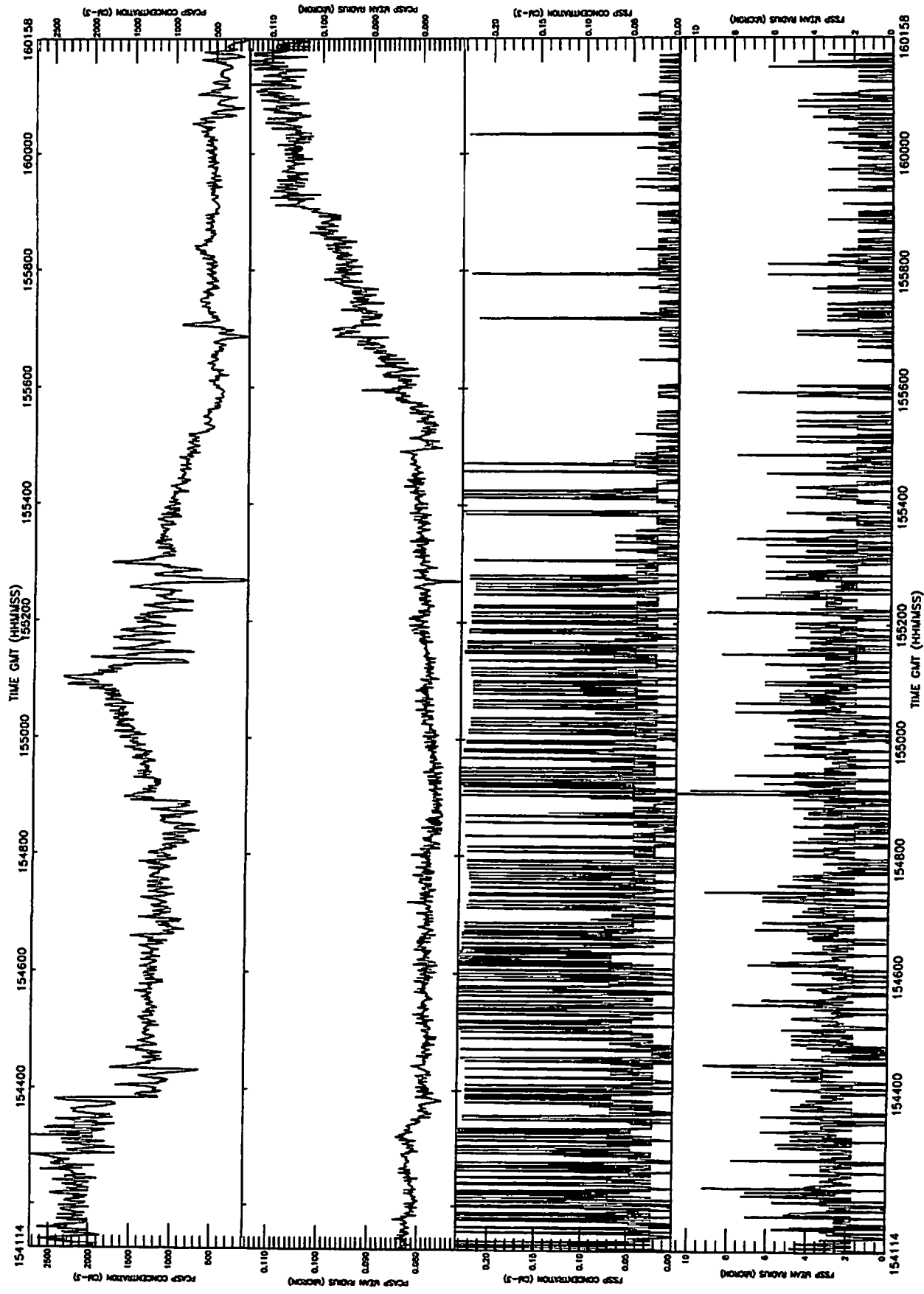
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



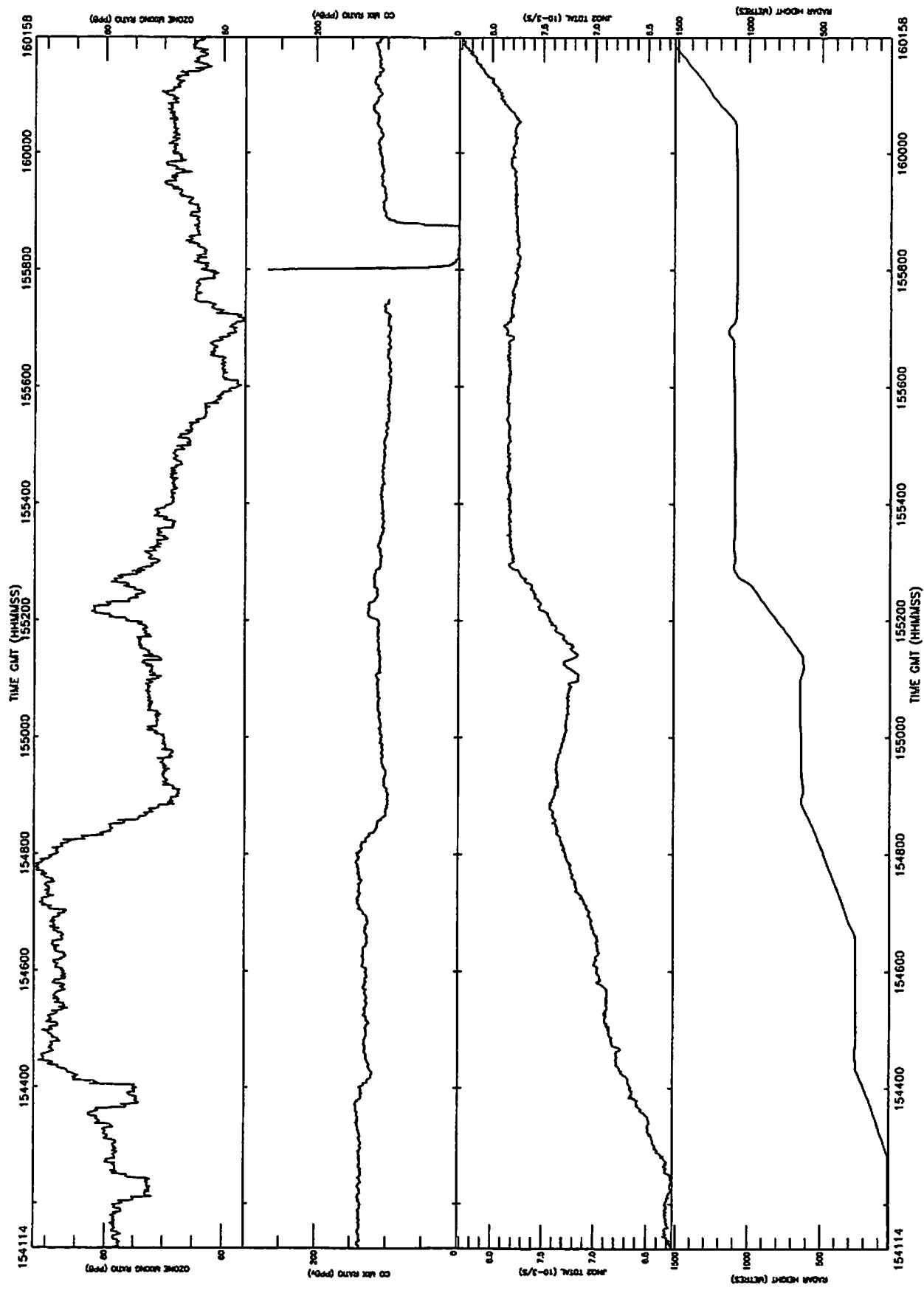
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



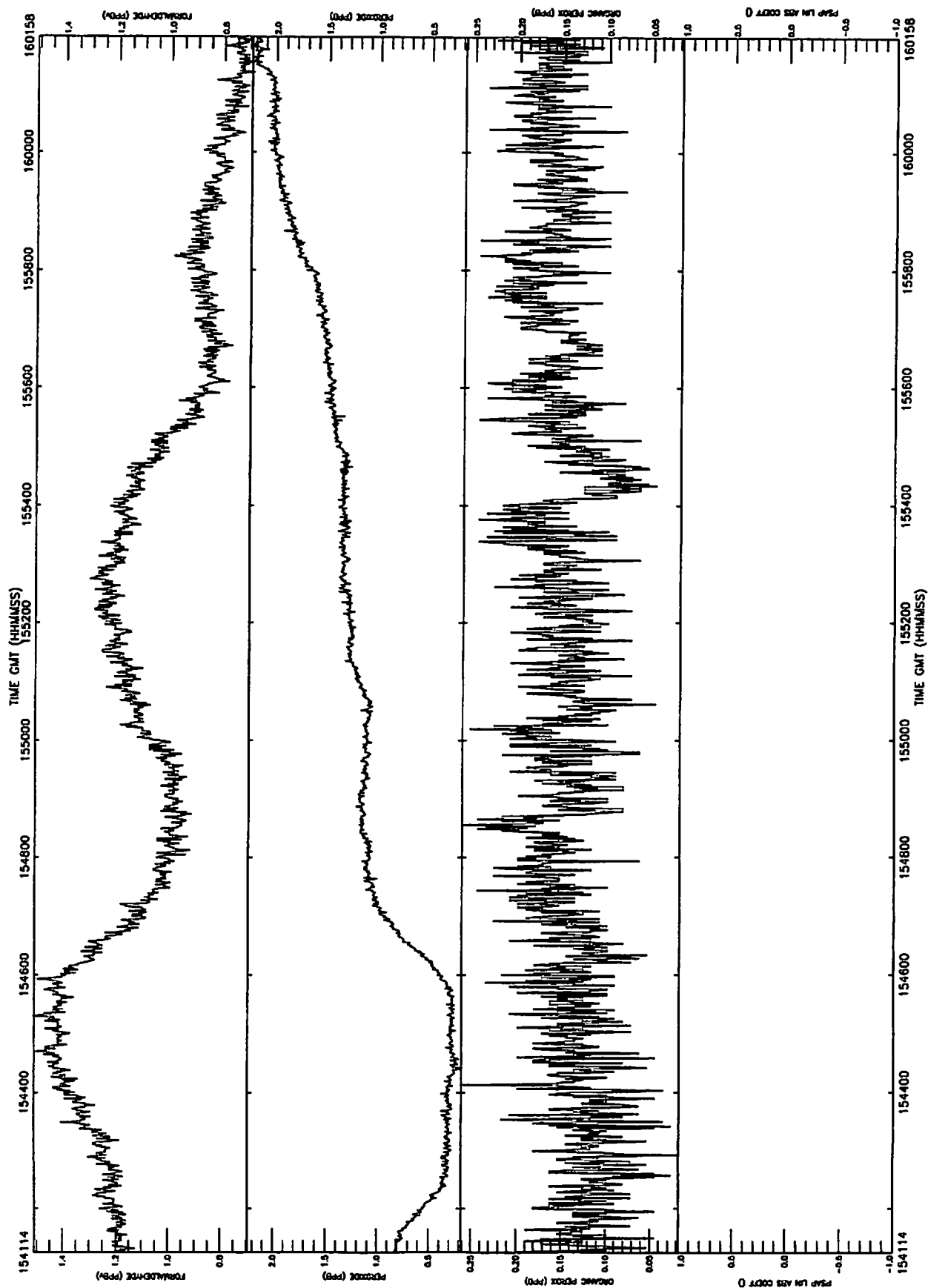
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 12-Dec-1997 16:55



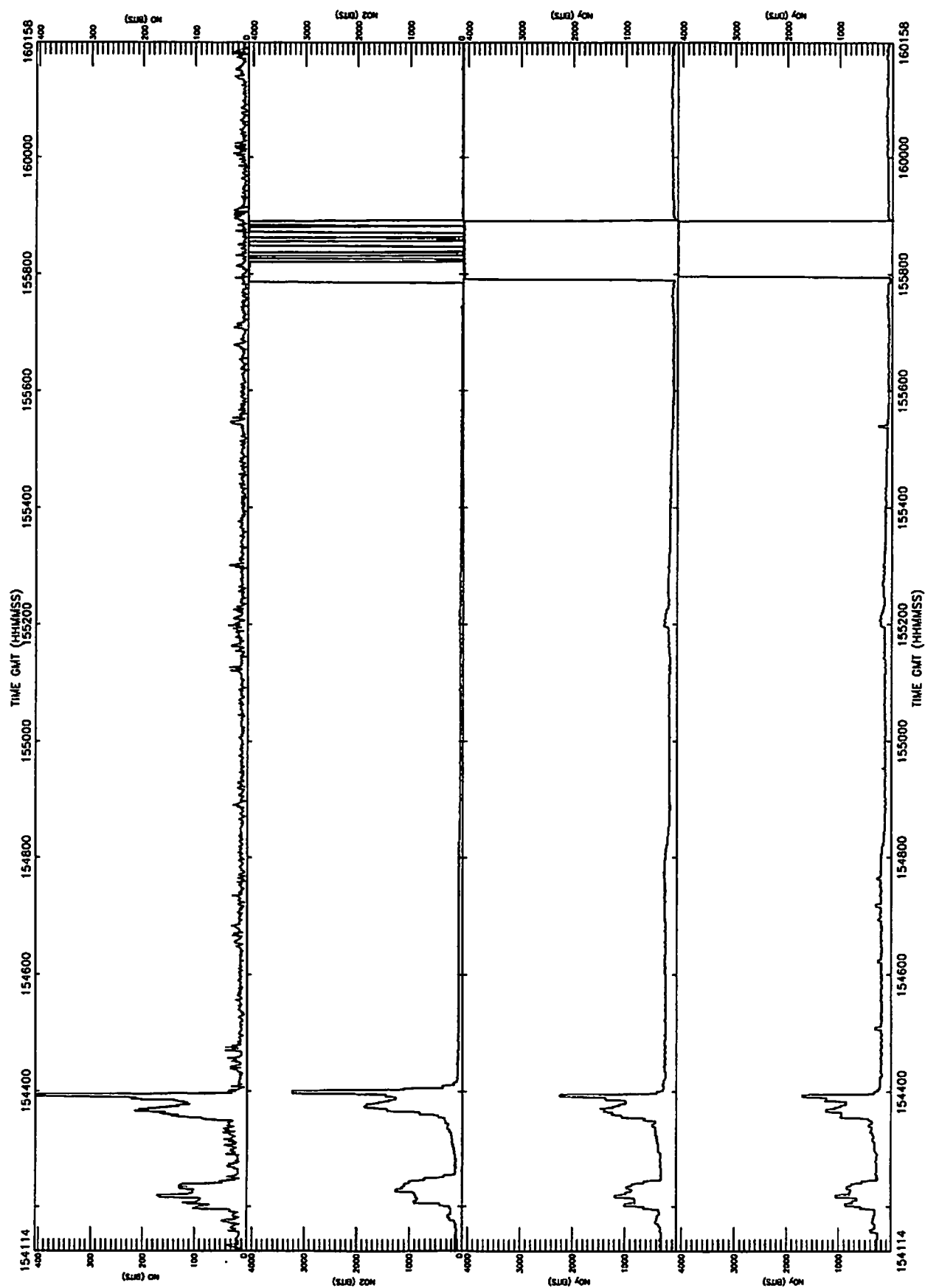
A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 Plotted 9-Dec-1997 16:46



A572 19-AUG-97 R33-R36,P33-P37 100'-5000' From 154114-160158 *Plotted 12-Dec-1997 16:55*

STATIC PRESSURE (MB)

No of obs 1245
Mean 941.967
Standard dev 46.1384
Max value 1019.45
Min value 851.413

DEICED TRUE TEMP (DEG K)

No of obs 1245
Mean 291.808
Standard dev 2.96339
Max value 296.146
Min value 286.258

DEW POINT (DEG K)

No of obs 1245
Mean 279.355
Standard dev 3.70734
Max value 280.020
Min value 273.199

OZONE MIXING RATIO (PPB)

No of obs 1245
Mean 73.4988
Standard dev 9.24065
Max value 92.1016
Min value 56.3163

PCASP CONCENTRATION (CM-3)

No of obs 1245
Mean 1109.36
Standard dev 561.548
Max value 2731.46
Min value 87.7685

FSSP CONCENTRATION (CM-3)

No of obs 1245
Mean 4.901149e-02
Standard dev 7.437346e-02
Max value 0.233164
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1245
Mean 723.359
Standard dev 420.514
Max value 1522.15
Min value 26.4109

CORRECTED LATITUDE (DEGREES)

No of obs 1245
Mean 53.9771
Standard dev 0.171891
Max value 54.1168
Min value 53.5773

CORRECTED LONGITUDE (DEGREES)

No of obs 1245
Mean 4.41517
Standard dev 0.350541
Max value 4.73745
Min value 3.62938

NORTHWARD WIND COMPT (M S-1)

No of obs 1245
Mean -0.495083
Standard dev 1.30199
Max value 1.61720
Min value -2.58808

EASTWARD WIND COMPT (M S-1)

No of obs 1245
Mean -6.58079
Standard dev 0.863207
Max value -4.39241
Min value -9.32893

VERTICAL WIND COMPT (M S-1)

No of obs 1245
Mean -6.106175e-02
Standard dev 0.259542
Max value 0.543564
Min value -0.876244

WIND SPEED (MS-1)

No of obs 1245
Mean 6.72419
Standard dev 0.880949
Max value 9.35645
Min value 4.39713

WIND DIRECTION (DEG)

Mean 85.6976

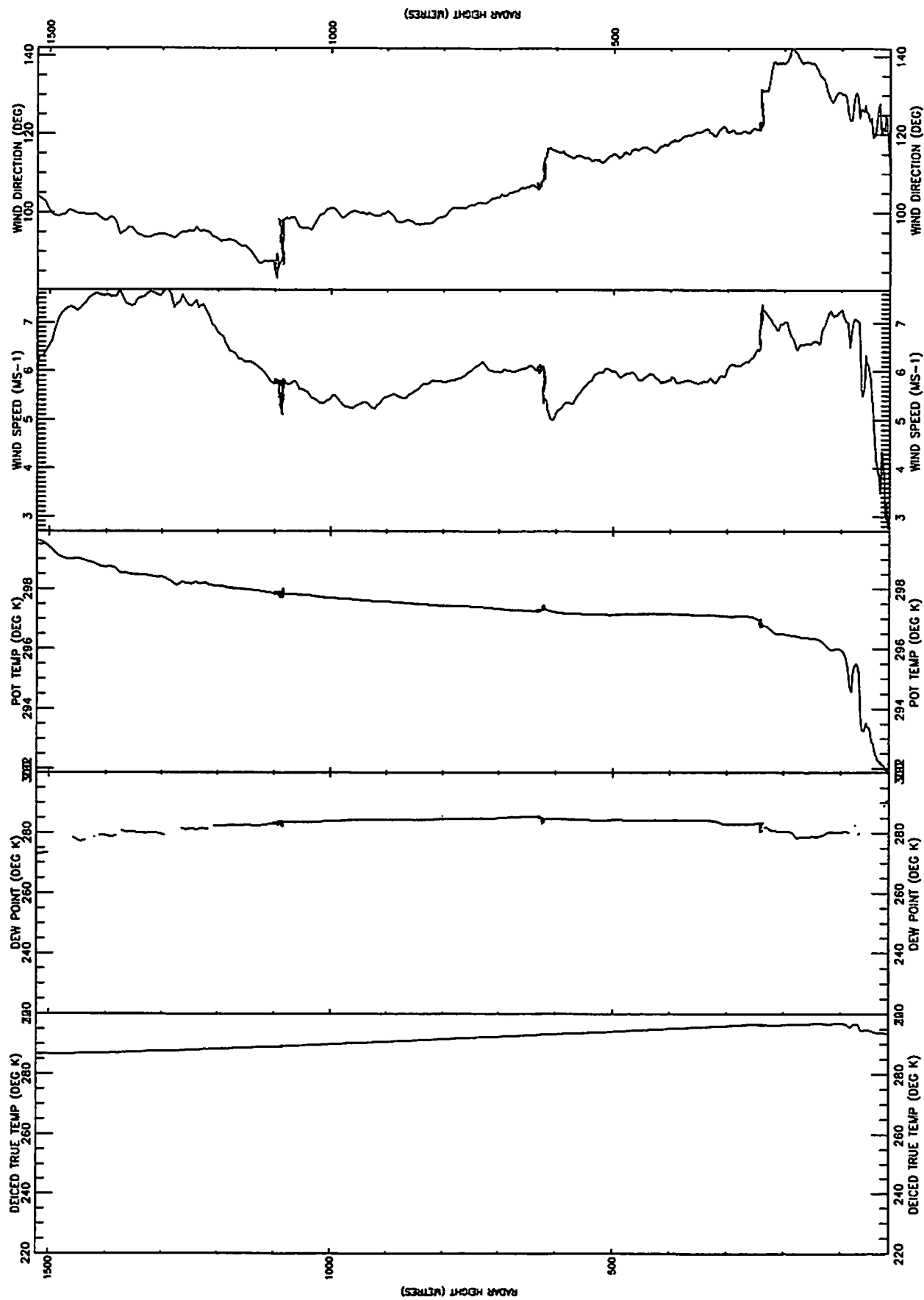
TRUE AIR SPEED (M S-1)

No of obs 1245
Mean 97.8915
Standard dev 2.82828
Max value 105.438
Min value 93.6402

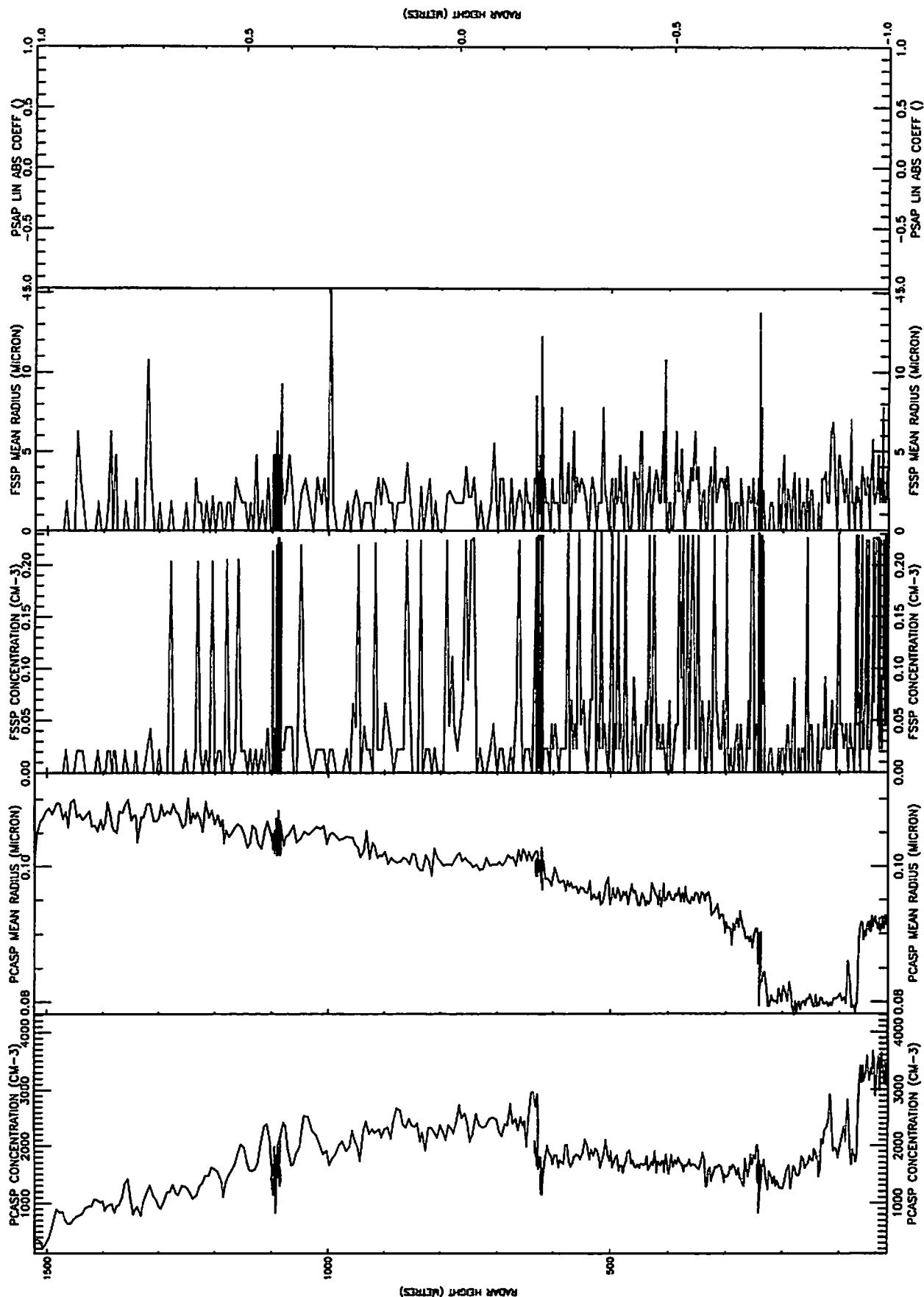
HEADING (DEG)

Mean 308.407

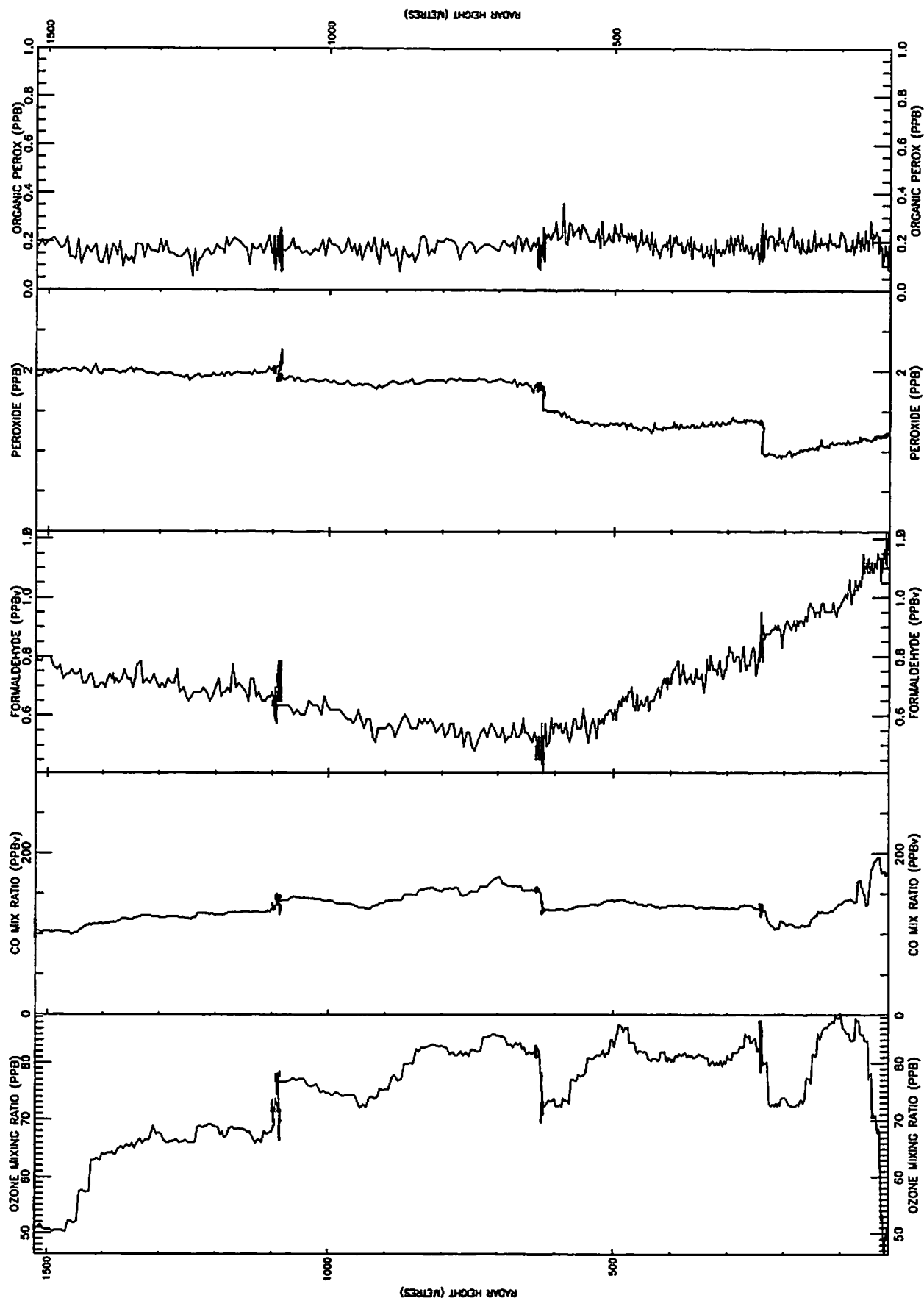
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:52



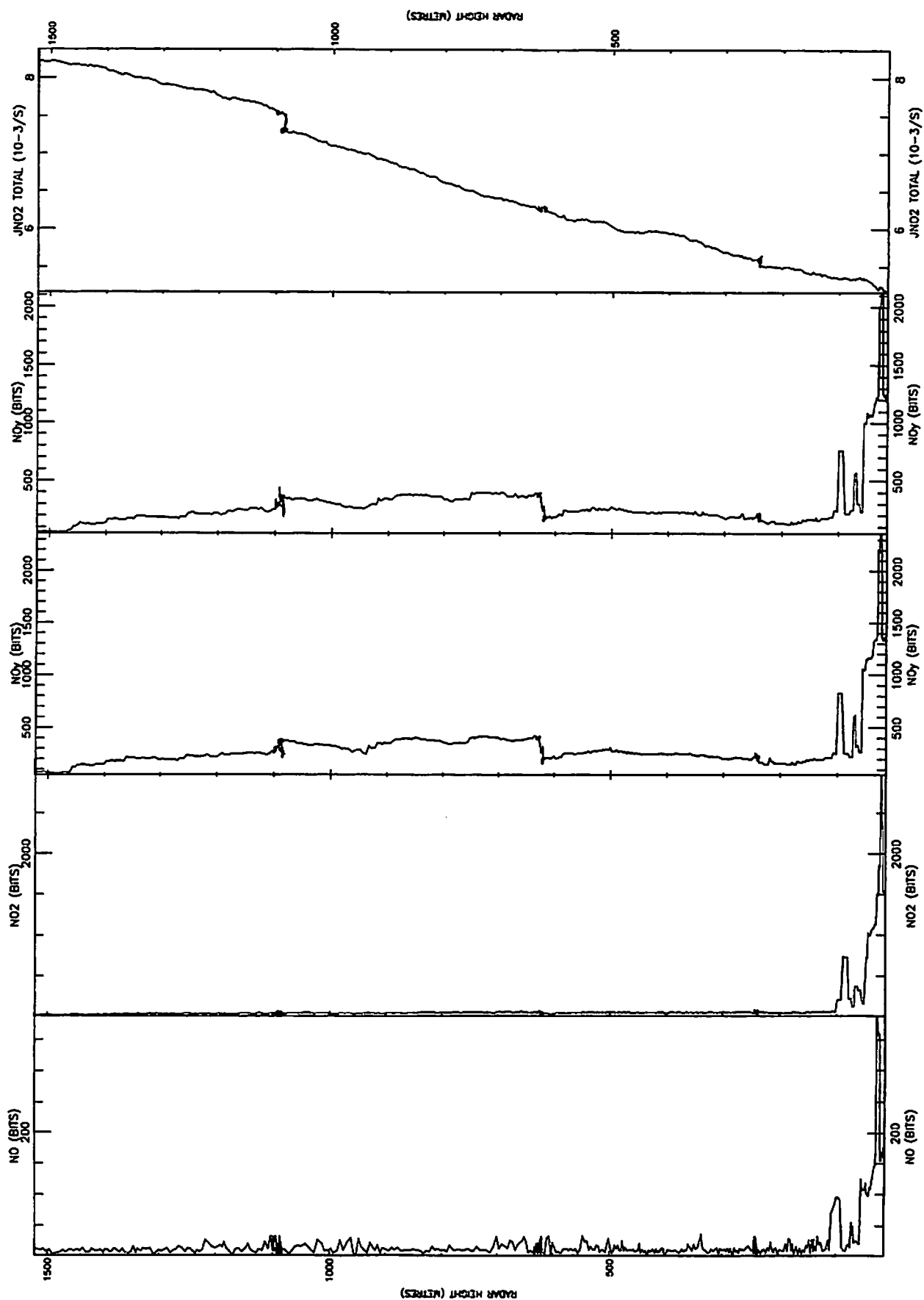
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 12-Dec-1997 16:59



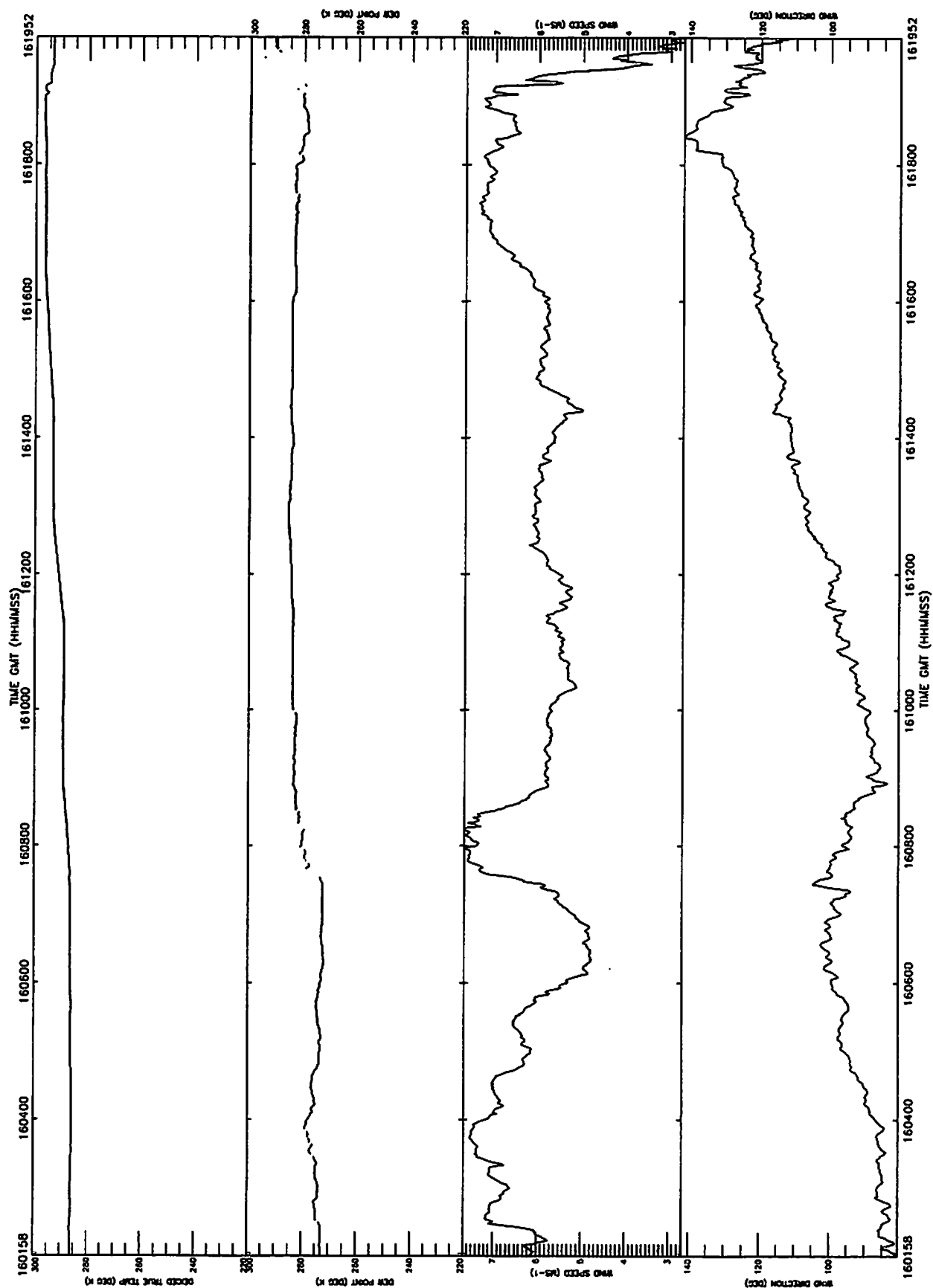
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:52



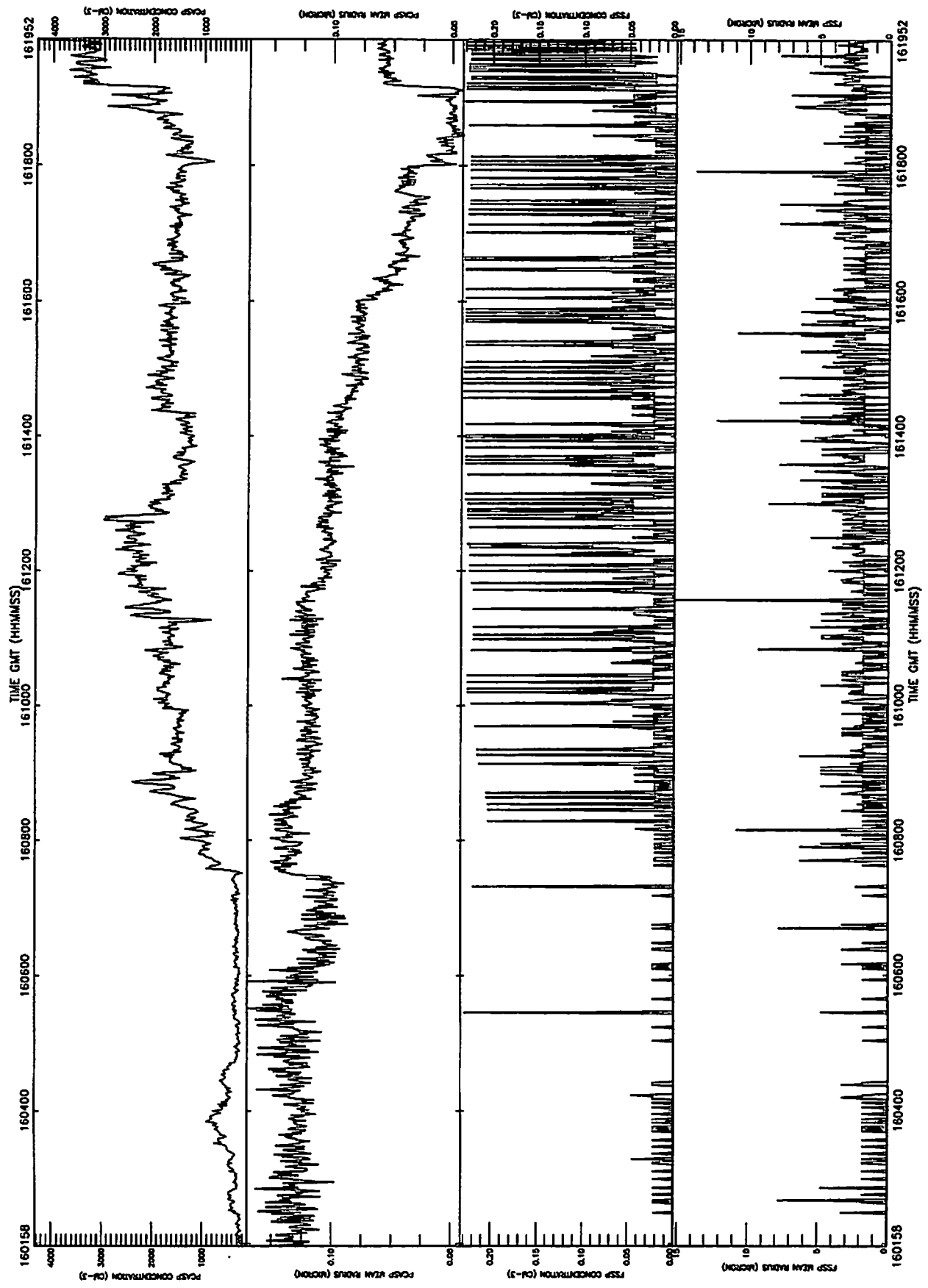
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 *Plotted* 9-Dec-1997 16:52



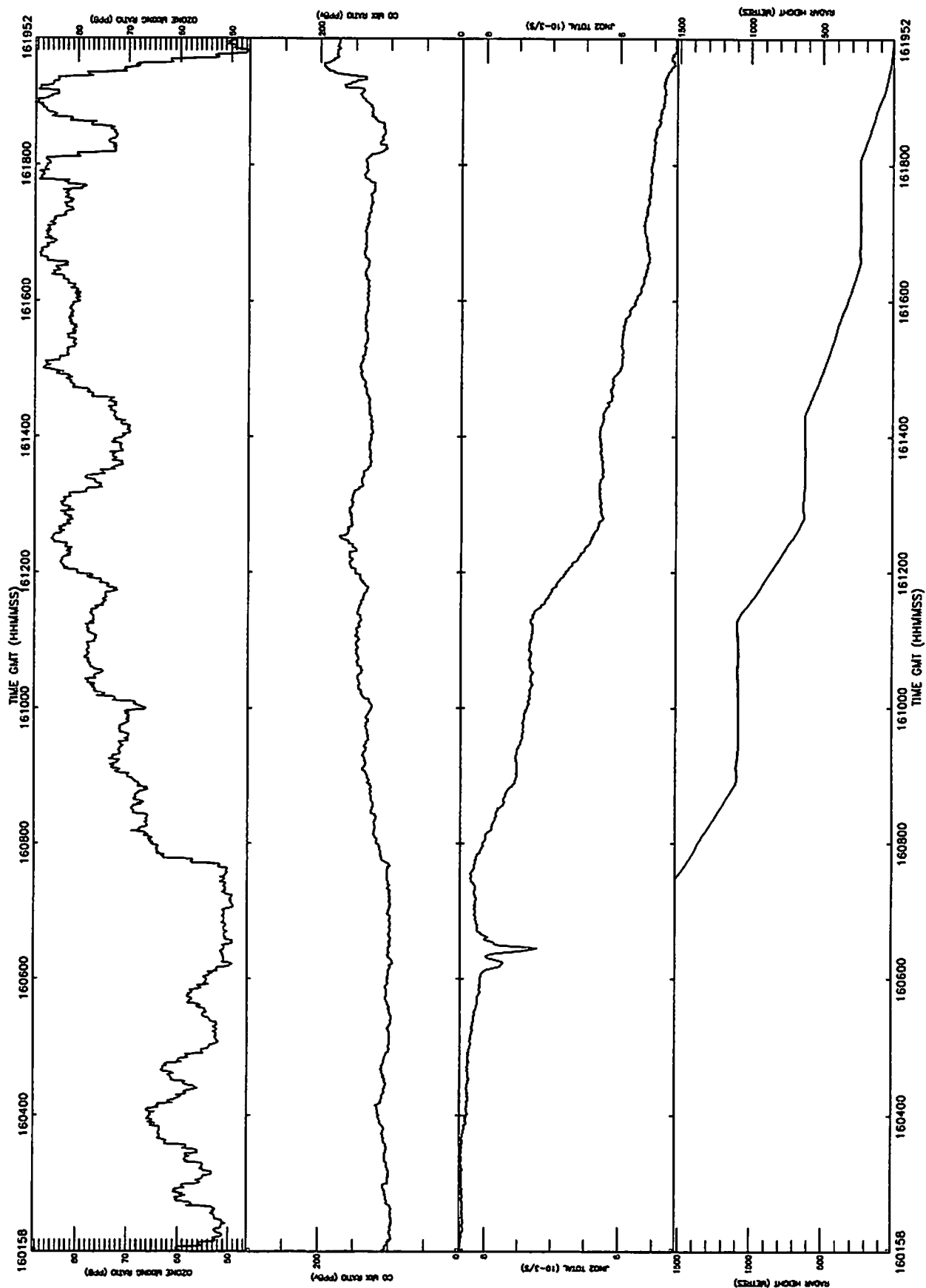
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:53



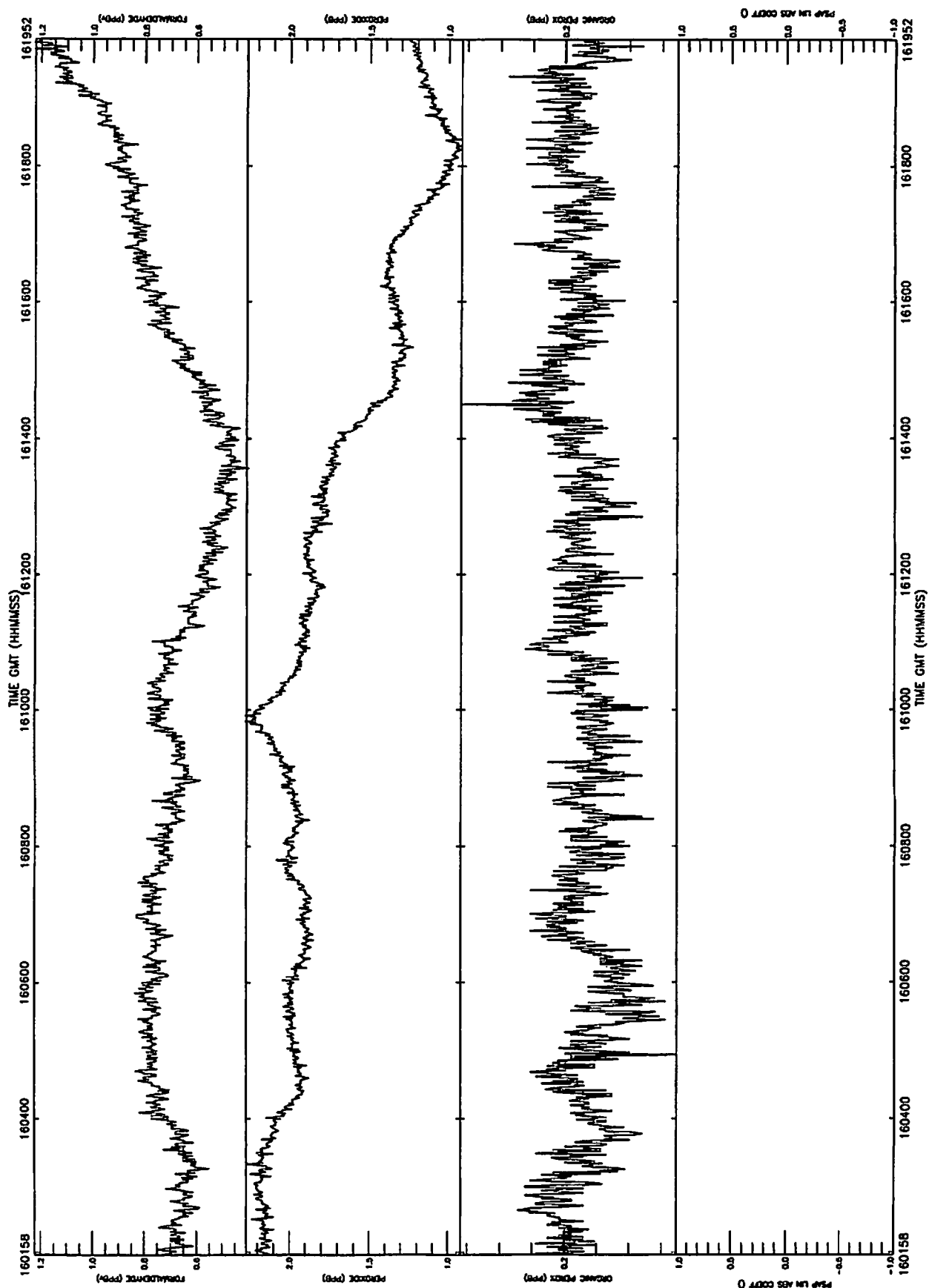
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 12-Dec-1997 16:59



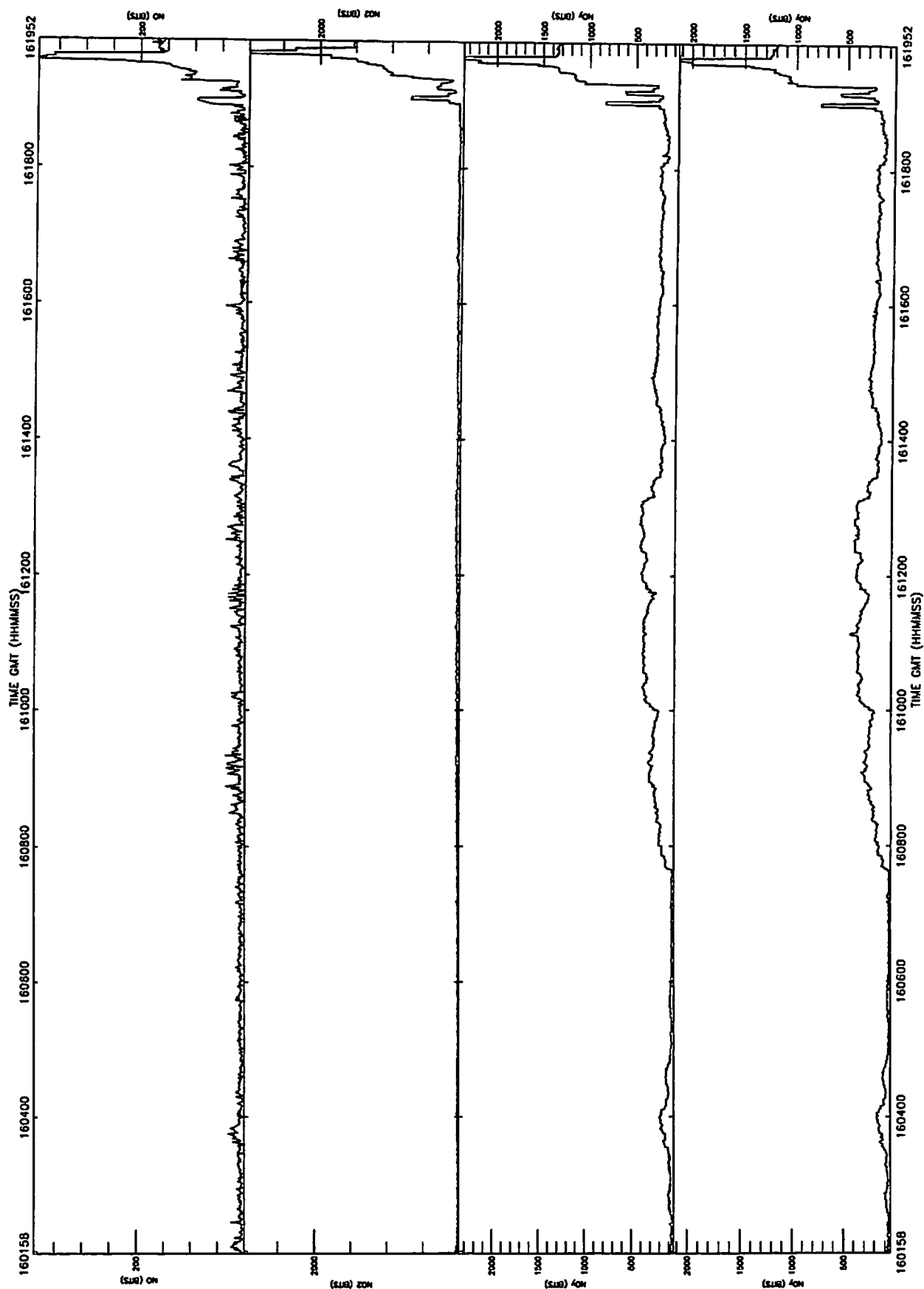
A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:53



A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:53



A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 Plotted 9-Dec-1997 16:53



A572 19-AUG-97 R37-R40,P38-P41 5000'-50' From 160158-161952 *Plotted 12-Dec-1997 16:59*

STATIC PRESSURE (MB)

No of obs 1075
Mean 918.934
Standard dev 57.8824
Max value 1019.97
Min value 850.479

DEICED TRUE TEMP (DEG K)

No of obs 1075
Mean 290.618
Standard dev 3.93111
Max value 296.821
Min value 285.686

DEW POINT (DEG K)

No of obs 1075
Mean 280.503
Standard dev 4.80265
Max value 294.737
Min value 272.098

OZONE MIXING RATIO (PPB)

No of obs 1075
Mean 69.7513
Standard dev 11.9130
Max value 88.4452
Min value 46.4106

PCASP CONCENTRATION (CM-3)

No of obs 1075
Mean 1328.15
Standard dev 777.729
Max value 4320.85
Min value 115.168

FSSP CONCENTRATION (CM-3)

No of obs 1075
Mean 3.542076e-02
Standard dev 6.451356e-02
Max value 0.233149
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1075
Mean 926.427
Standard dev 525.780
Max value 1522.15
Min value 14.5164

CORRECTED LATITUDE (DEGREES)

No of obs 1075
Mean 54.0765
Standard dev 1.116987e-02
Max value 54.0950
Min value 54.0599

CORRECTED LONGITUDE (DEGREES)

No of obs 1075
Mean 2.76398
Standard dev 0.496570
Max value 3.62938
Min value 1.91345

NORTHWARD WIND COMPT (M S-1)

No of obs 1075
Mean 1.43338
Standard dev 1.61012
Max value 5.28608
Min value -1.01175

EASTWARD WIND COMPT (M S-1)

No of obs 1075
Mean -5.73193
Standard dev 0.896717
Max value -2.42795
Min value -7.66572

VERTICAL WIND COMPT (M S-1)

No of obs 1075
Mean 0.334541
Standard dev 0.389104
Max value 1.00680
Min value -0.589218

WIND SPEED (MS-1)

No of obs 1075
Mean 6.13018
Standard dev 0.851251
Max value 7.68626
Min value 2.69246

WIND DIRECTION (DEG)

Mean 104.040

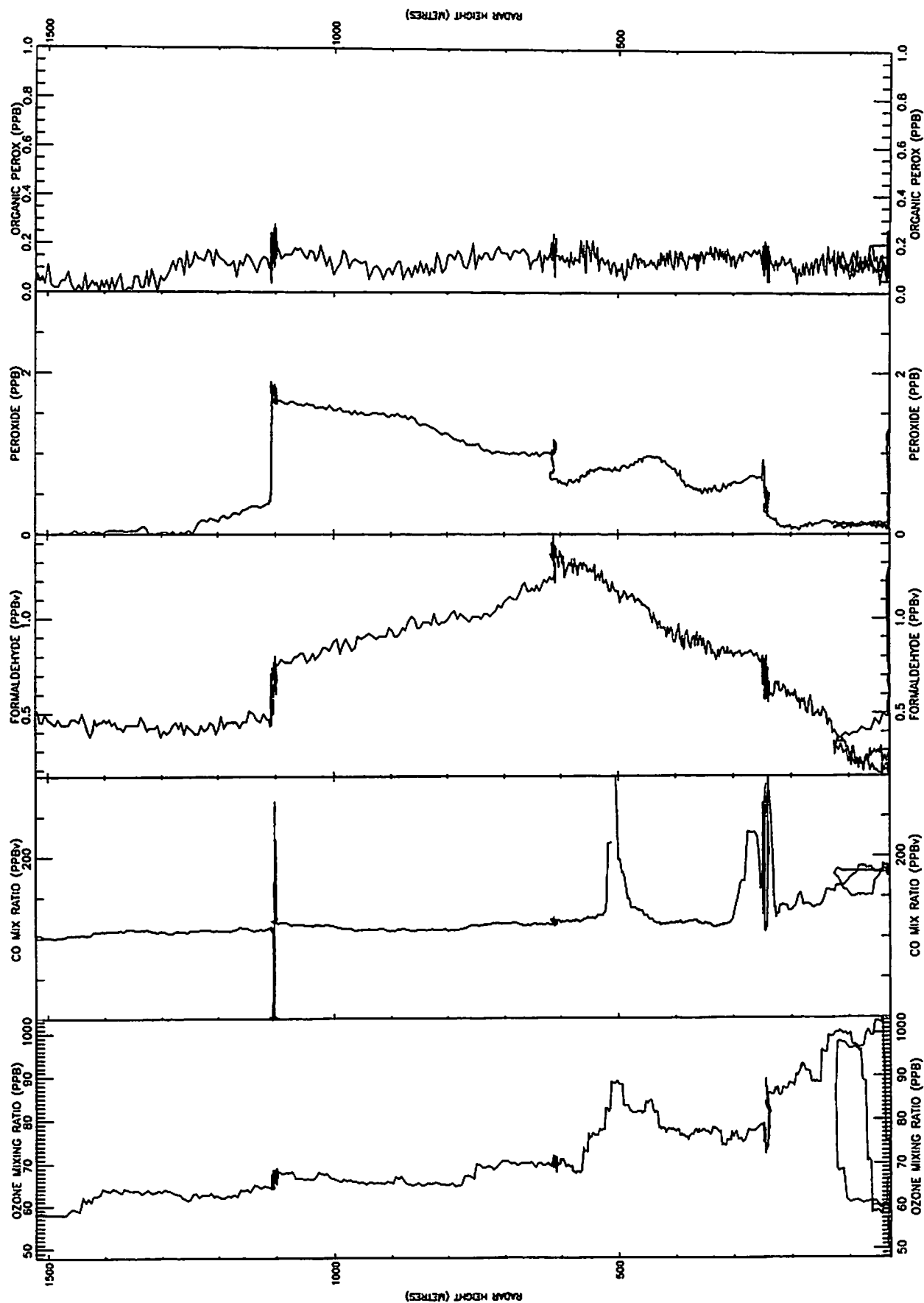
TRUE AIR SPEED (M S-1)

No of obs 1075
Mean 99.0162
Standard dev 3.15392
Max value 109.252
Min value 94.6853

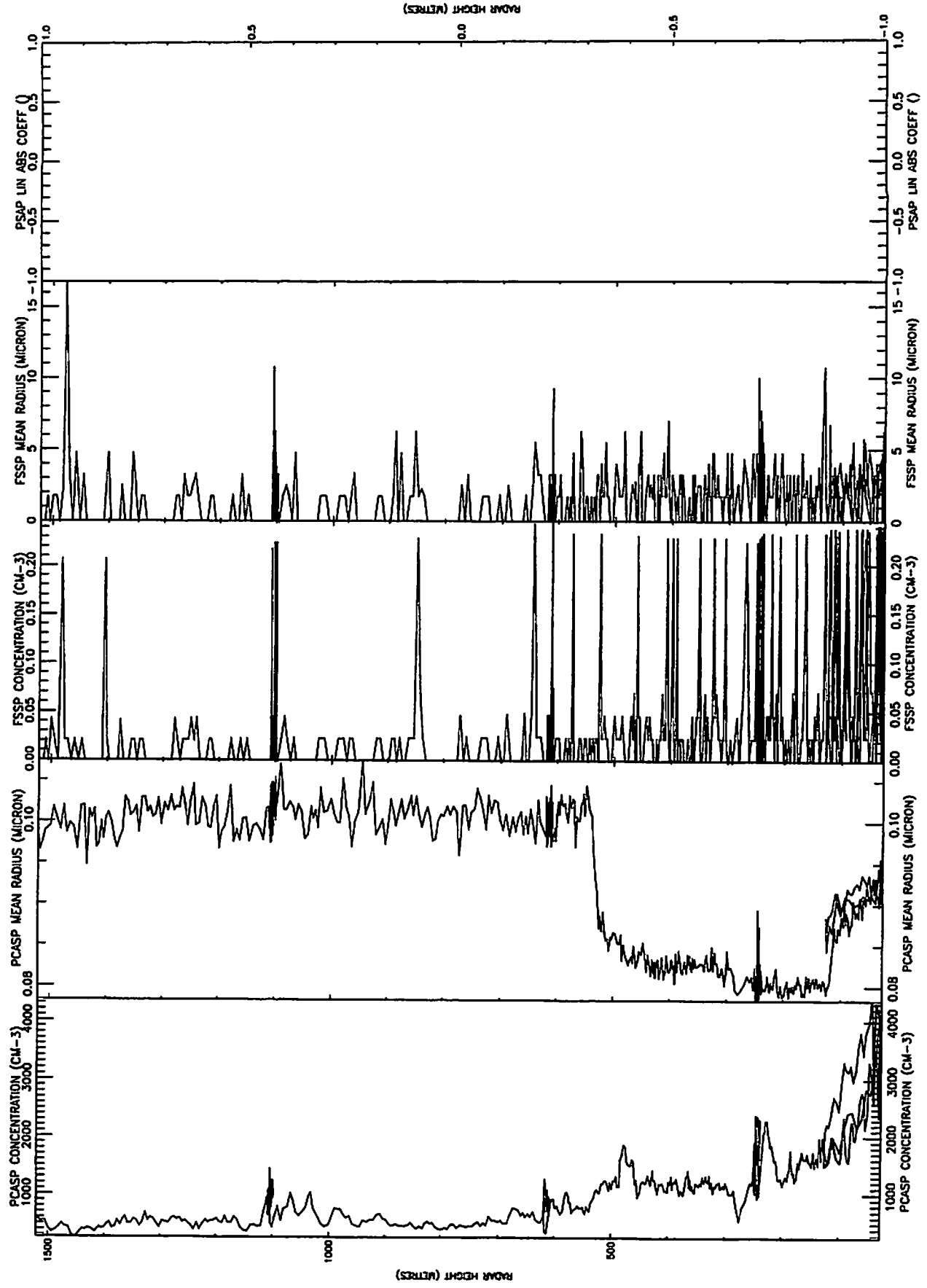
HEADING (DEG)

Mean 269.840

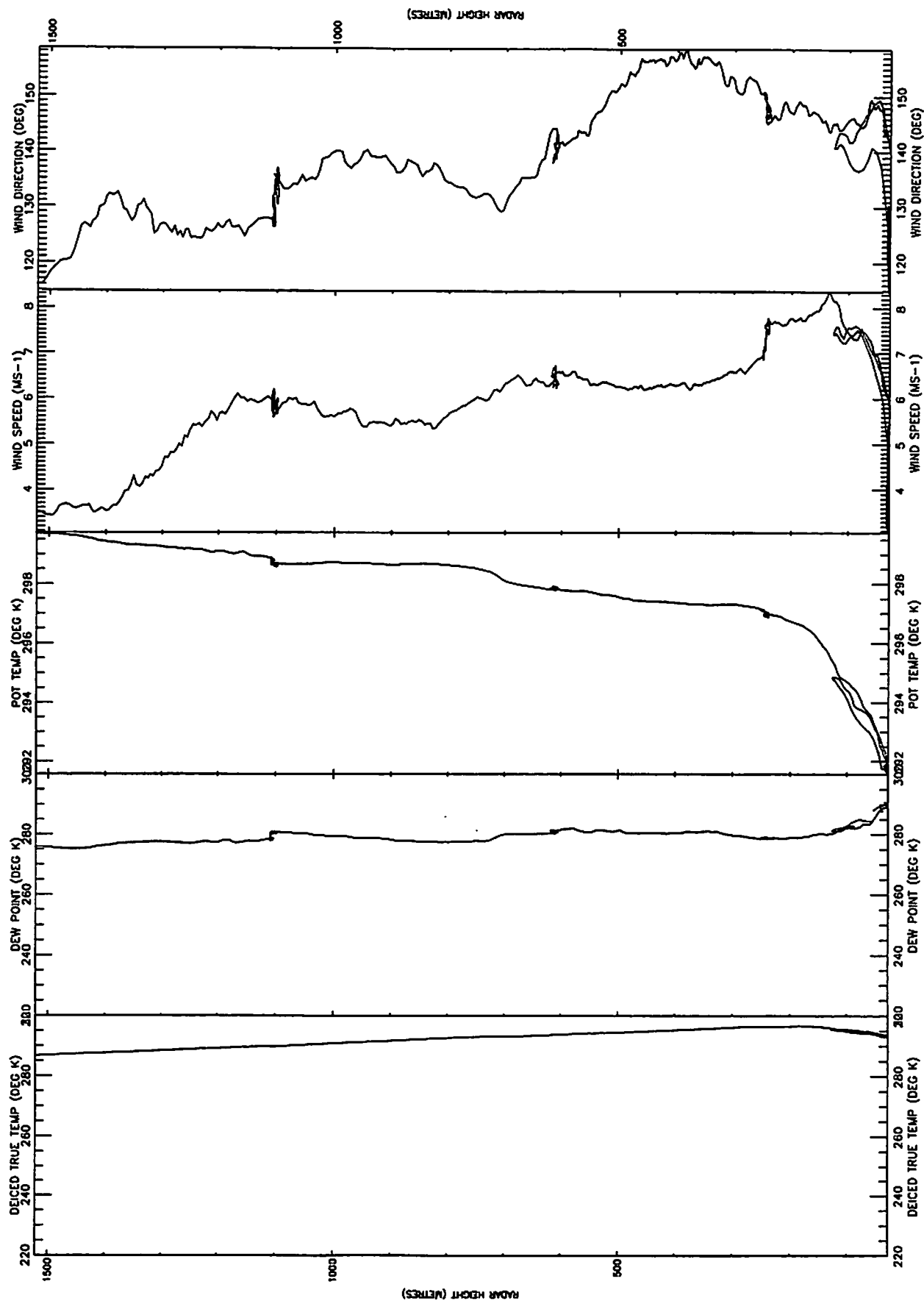
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 16:59



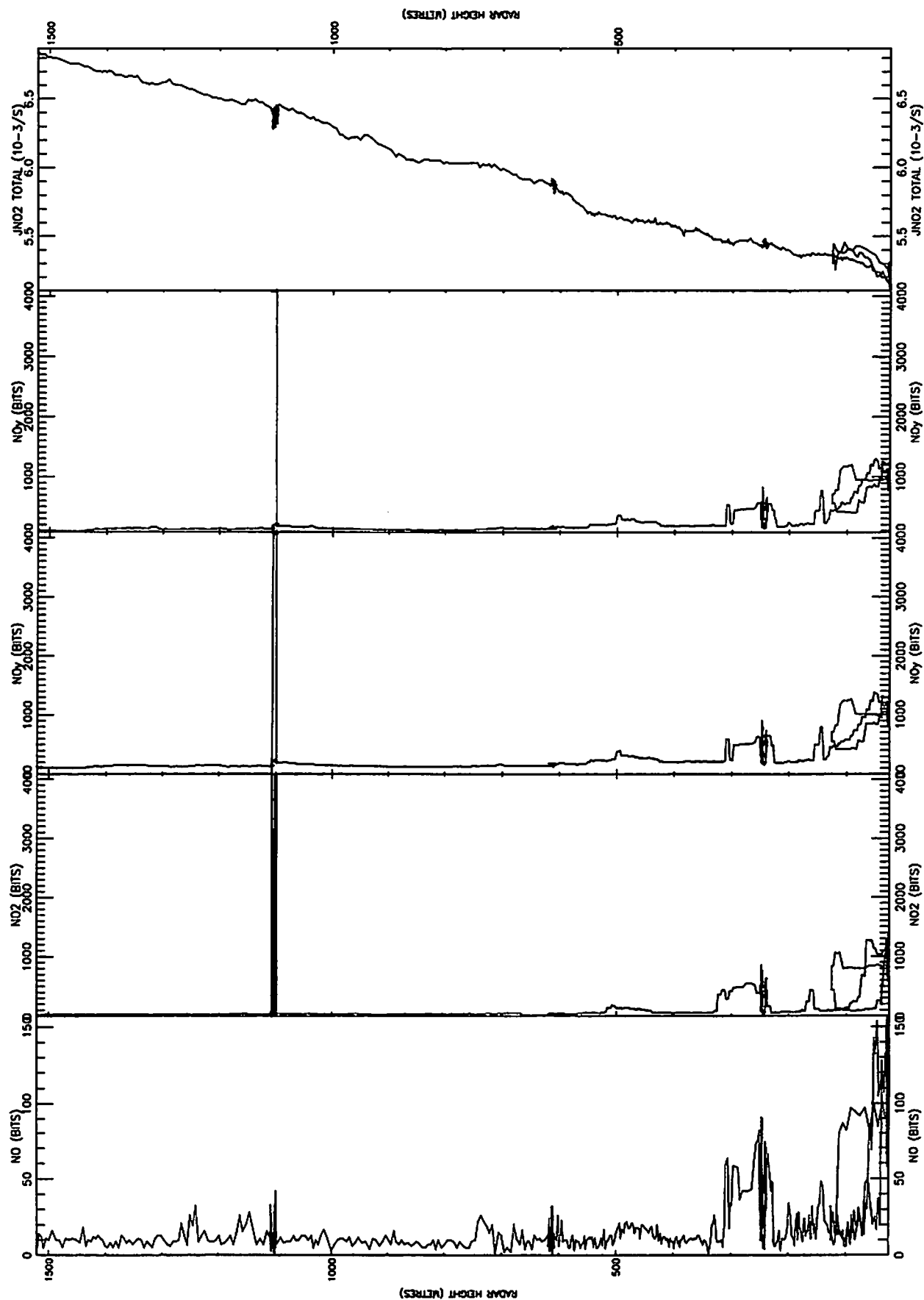
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 12-Dec-1997 17:03



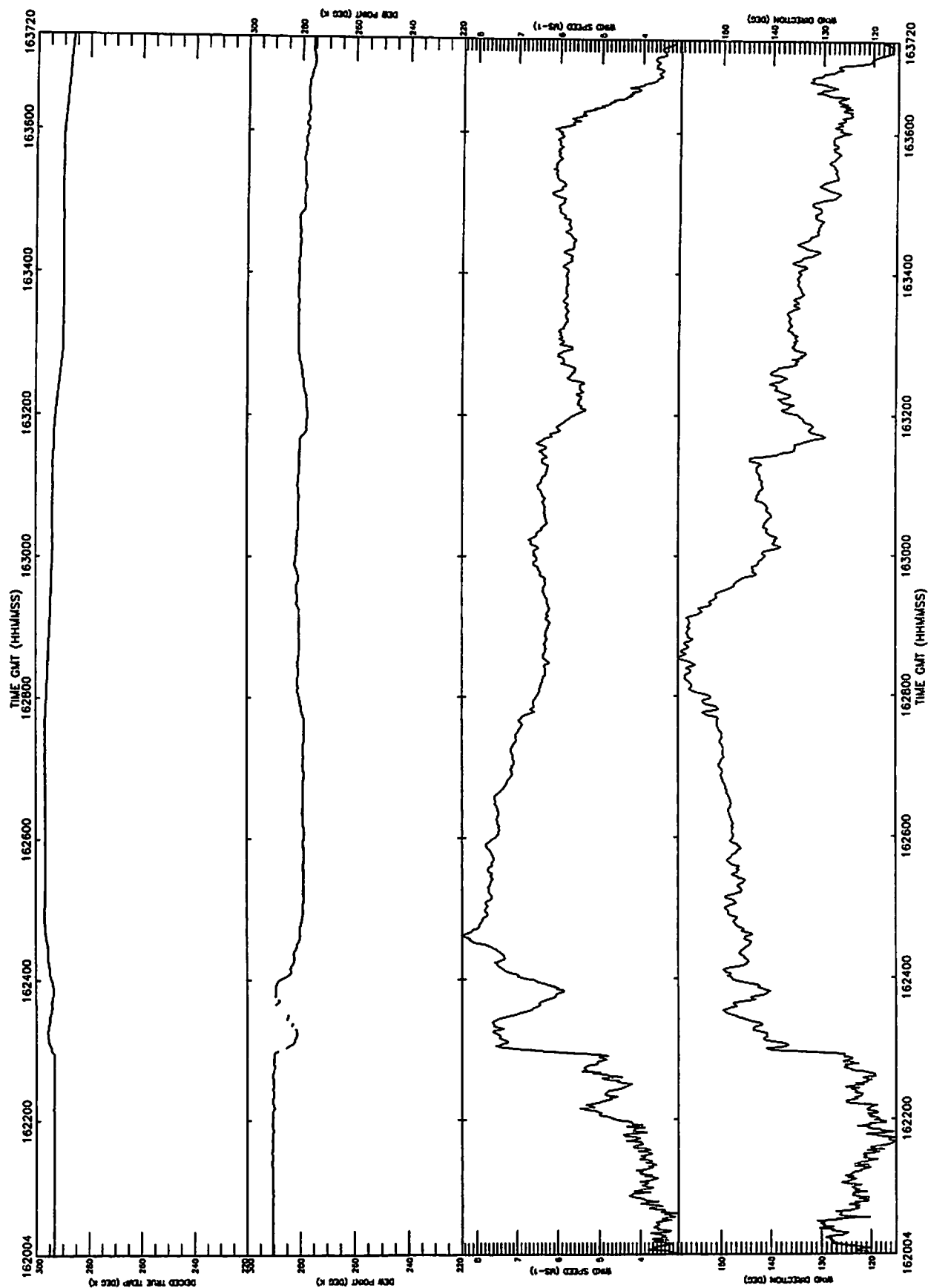
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 16:59



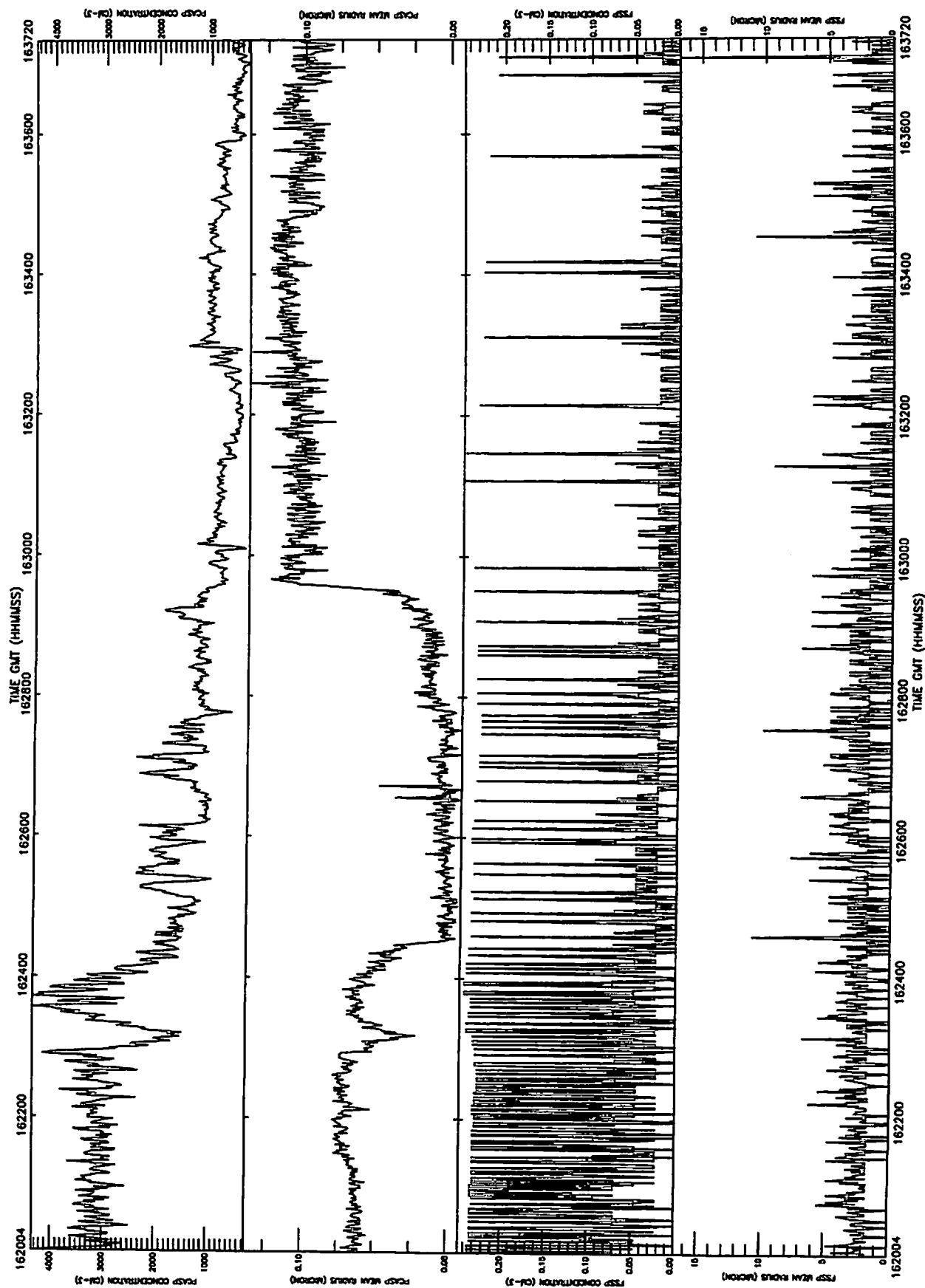
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 17:00



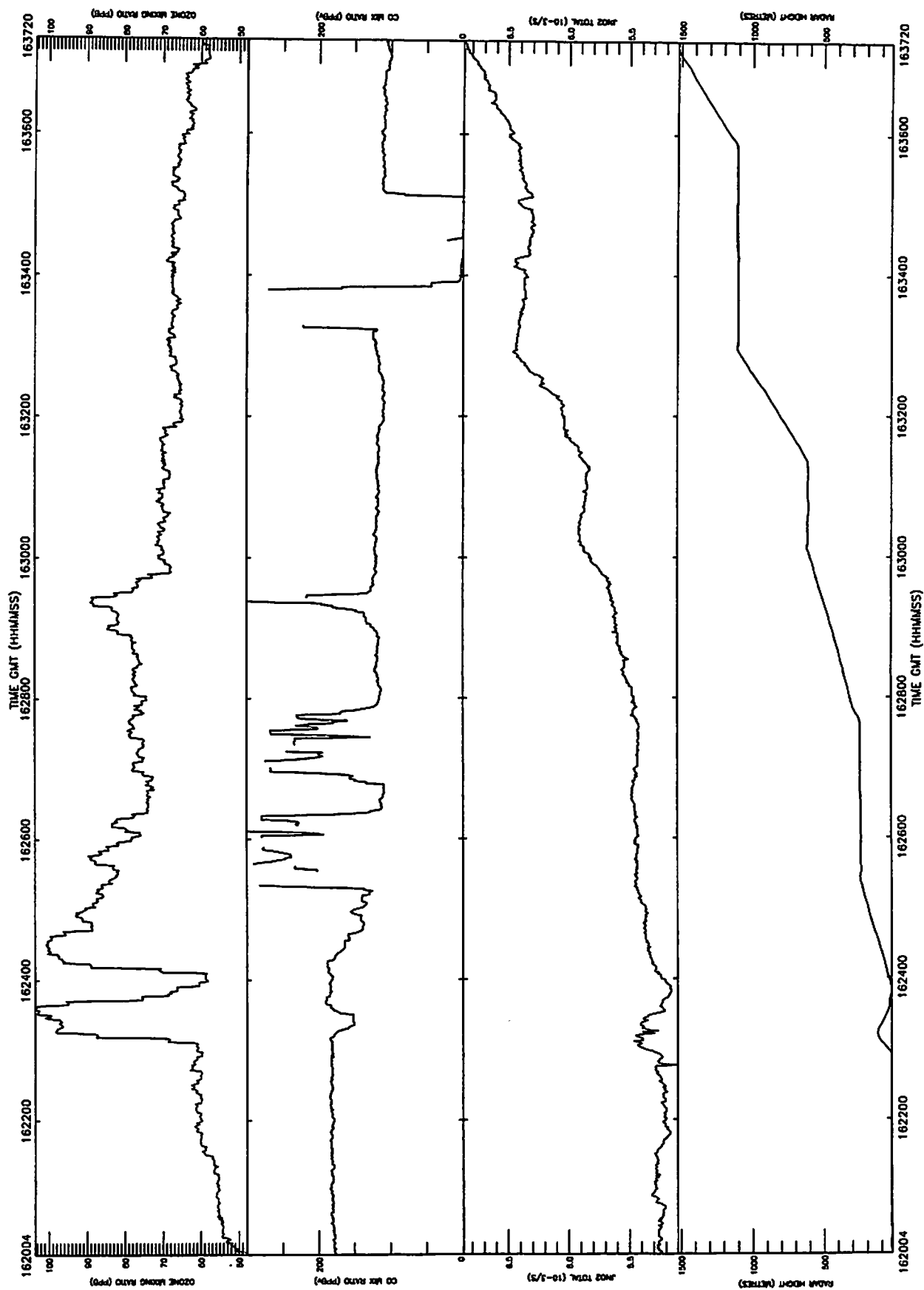
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 17:00



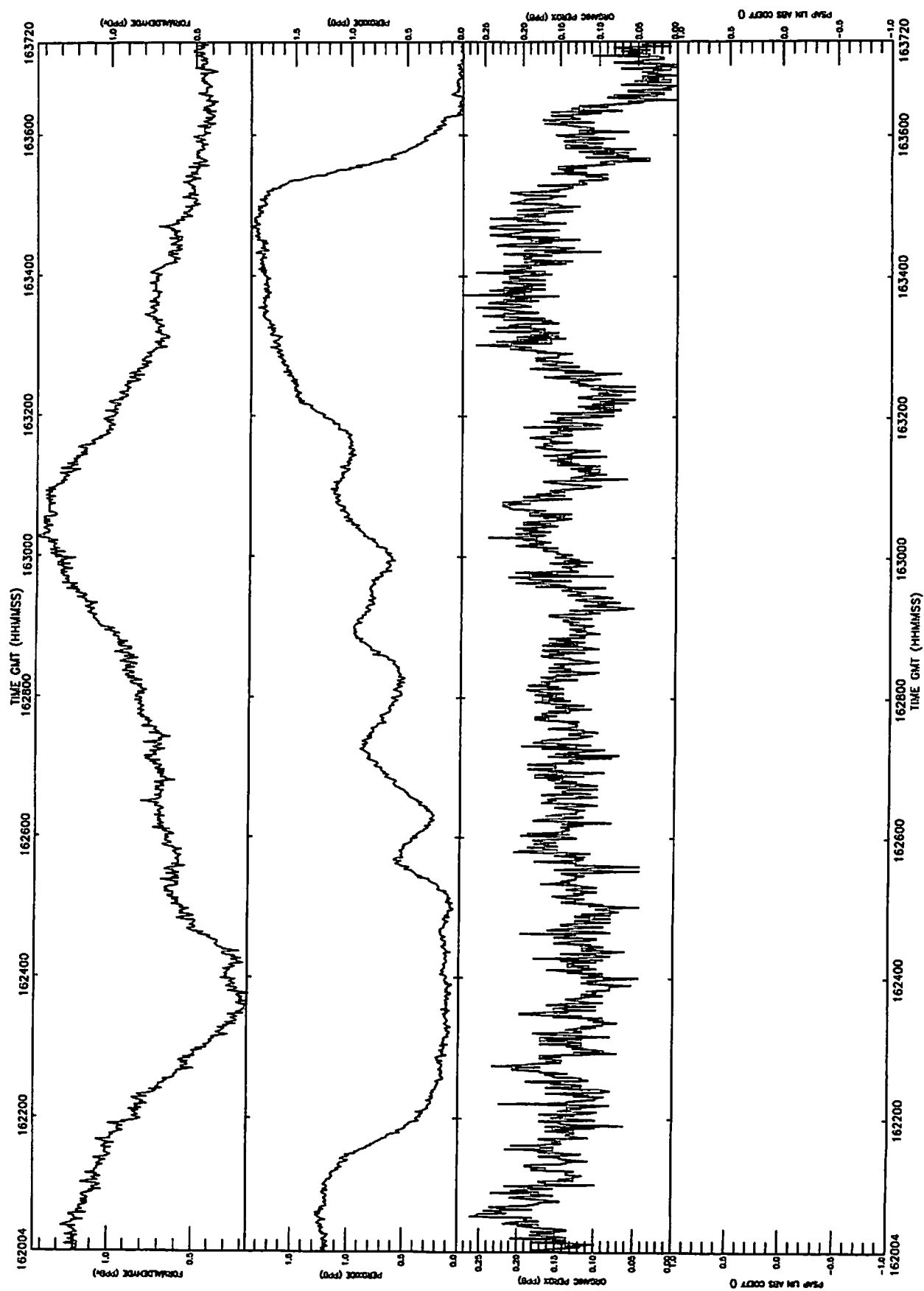
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 12-Dec-1997 17:03



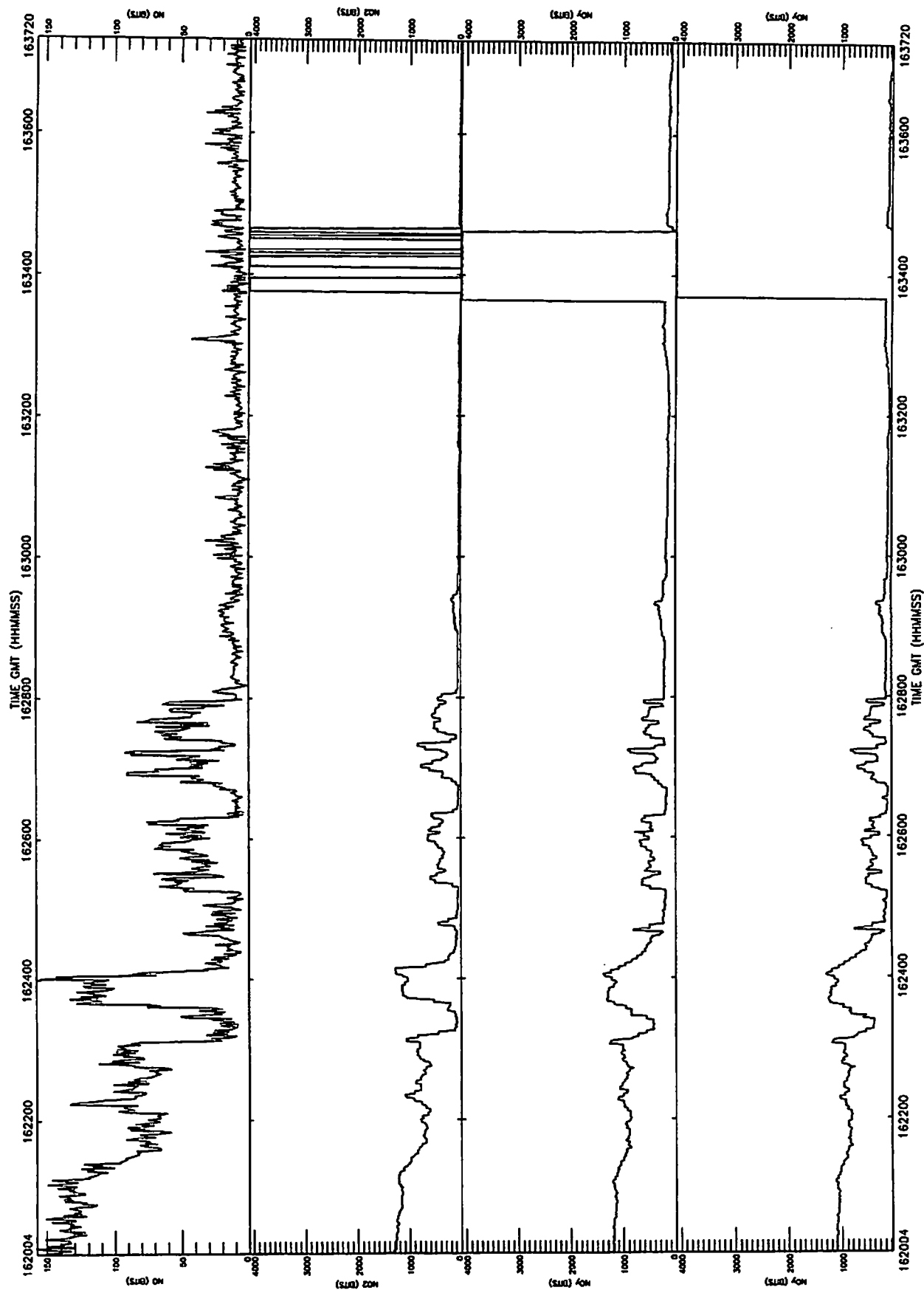
A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 17:00



A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 17:00



A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 9-Dec-1997 17:00



A572 19-AUG-97 R41-R45,P42-P45 100'-5000' From 162004-163720 Plotted 12-Dec-1997 17:03

STATIC PRESSURE (MB)

No of obs 1037
Mean 961.361
Standard dev 49.6864
Max value 1018.20
Min value 852.112

DEICED TRUE TEMP (DEG K)

No of obs 1037
Mean 293.118
Standard dev 2.69999
Max value 296.651
Min value 286.356

DEW POINT (DEG K)

No of obs 1037
Mean 281.732
Standard dev 4.35874
Max value 290.606
Min value 275.224

OZONE MIXING RATIO (PPB)

No of obs 1037
Mean 70.8177
Standard dev 11.0612
Max value 103.517
Min value 47.8551

PCASP CONCENTRATION (CM-3)

No of obs 1037
Mean 1518.15
Standard dev 977.550
Max value 4354.01
Min value 261.490

FSSP CONCENTRATION (CM-3)

No of obs 1037
Mean 4.628971e-02
Standard dev 7.266062e-02
Max value 0.246093
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1037
Mean 537.550
Standard dev 452.308
Max value 1522.15
Min value 28.6411

CORRECTED LATITUDE (DEGREES)

No of obs 1037
Mean 53.8205
Standard dev 0.216974
Max value 54.1040
Min value 53.4153

CORRECTED LONGITUDE (DEGREES)

No of obs 1037
Mean 1.77809
Standard dev 9.577652e-02
Max value 1.94870
Min value 1.61786

NORTHWARD WIND COMPT (M S-1)

No of obs 1037
Mean 4.46656
Standard dev 1.52306
Max value 6.74958
Min value 1.43267

EASTWARD WIND COMPT (M S-1)

No of obs 1037
Mean -3.80585
Standard dev 0.632039
Max value -2.31985
Min value -5.16782

VERTICAL WIND COMPT (M S-1)

No of obs 1037
Mean -0.173582
Standard dev 0.289209
Max value 0.634453
Min value -0.916992

WIND SPEED (MS-1)

No of obs 1037
Mean 5.96864
Standard dev 1.23549
Max value 8.35681
Min value 3.06451

WIND DIRECTION (DEG)

Mean 139.568

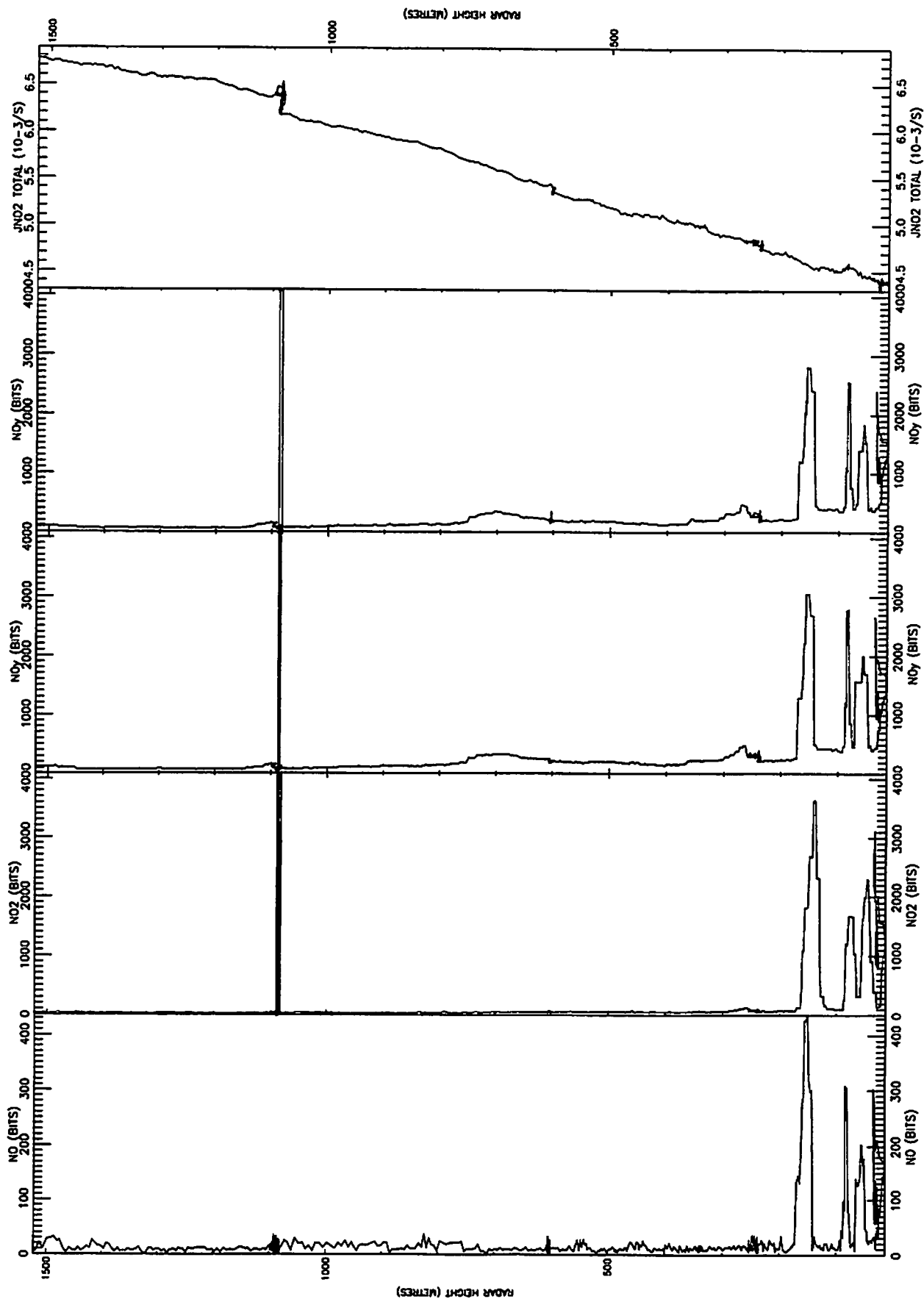
TRUE AIR SPEED (M S-1)

No of obs 1037
Mean 97.0079
Standard dev 3.71296
Max value 106.971
Min value 89.3304

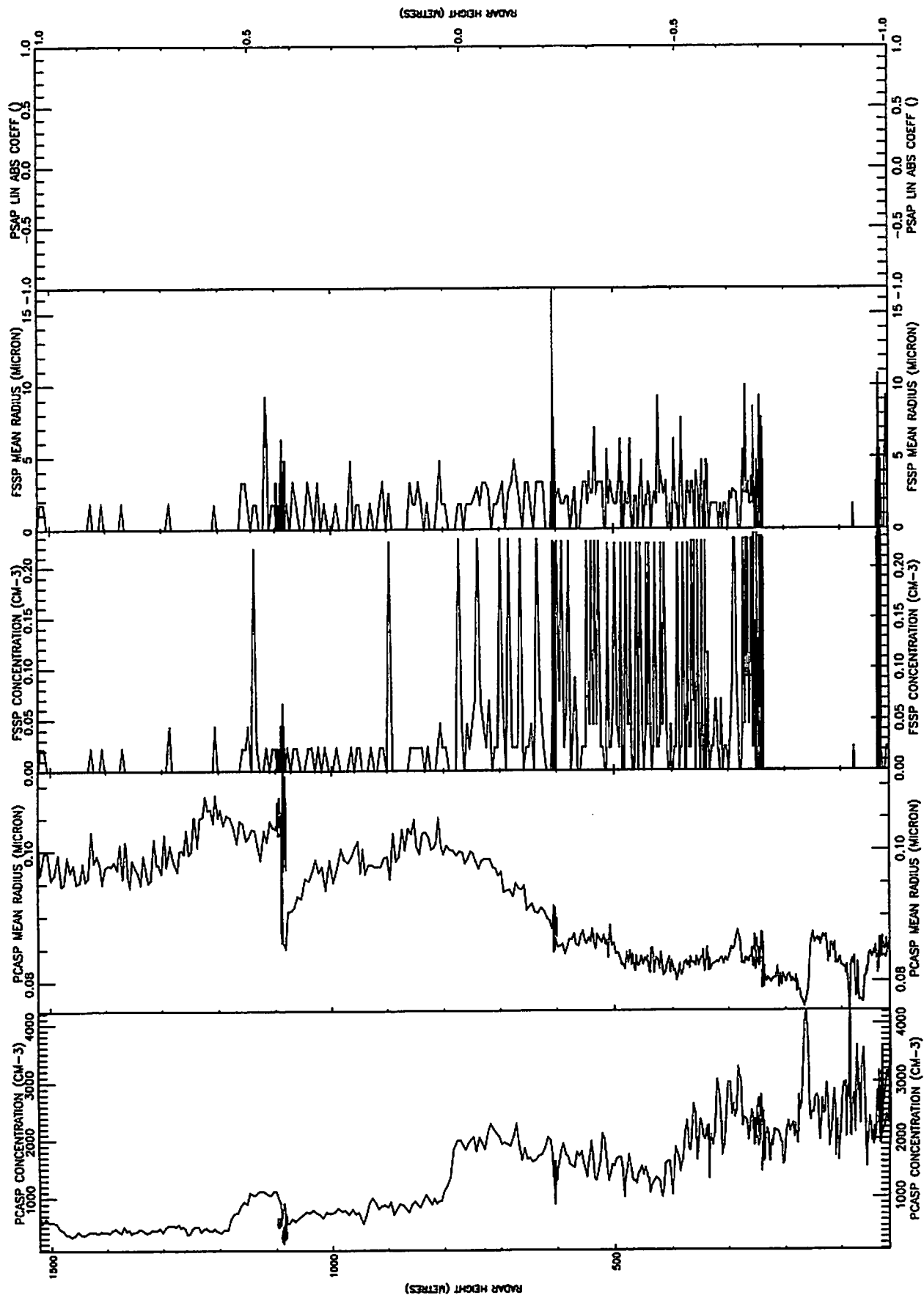
HEADING (DEG)

Mean 177.202

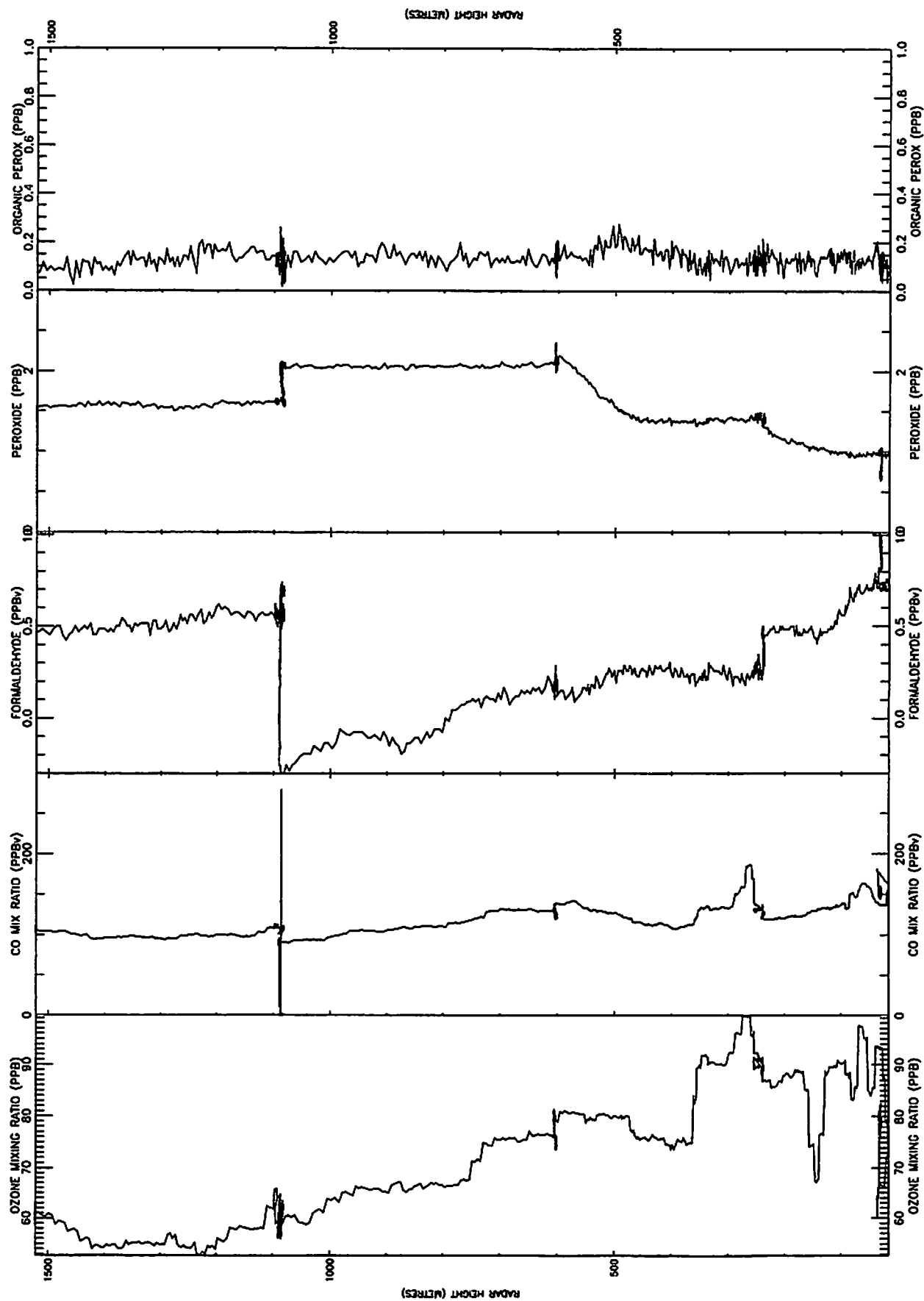
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



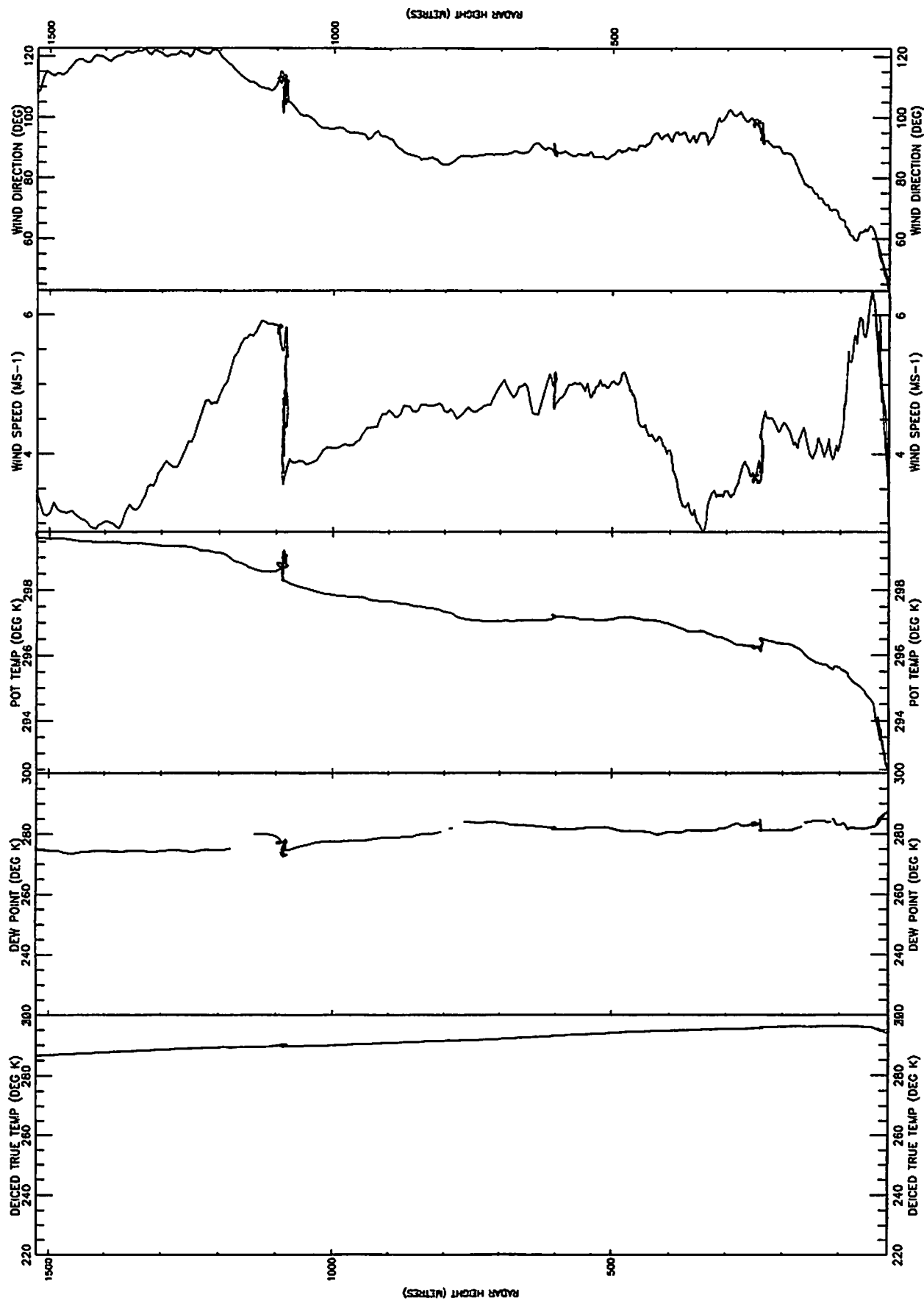
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 12-Dec-1997 17:08



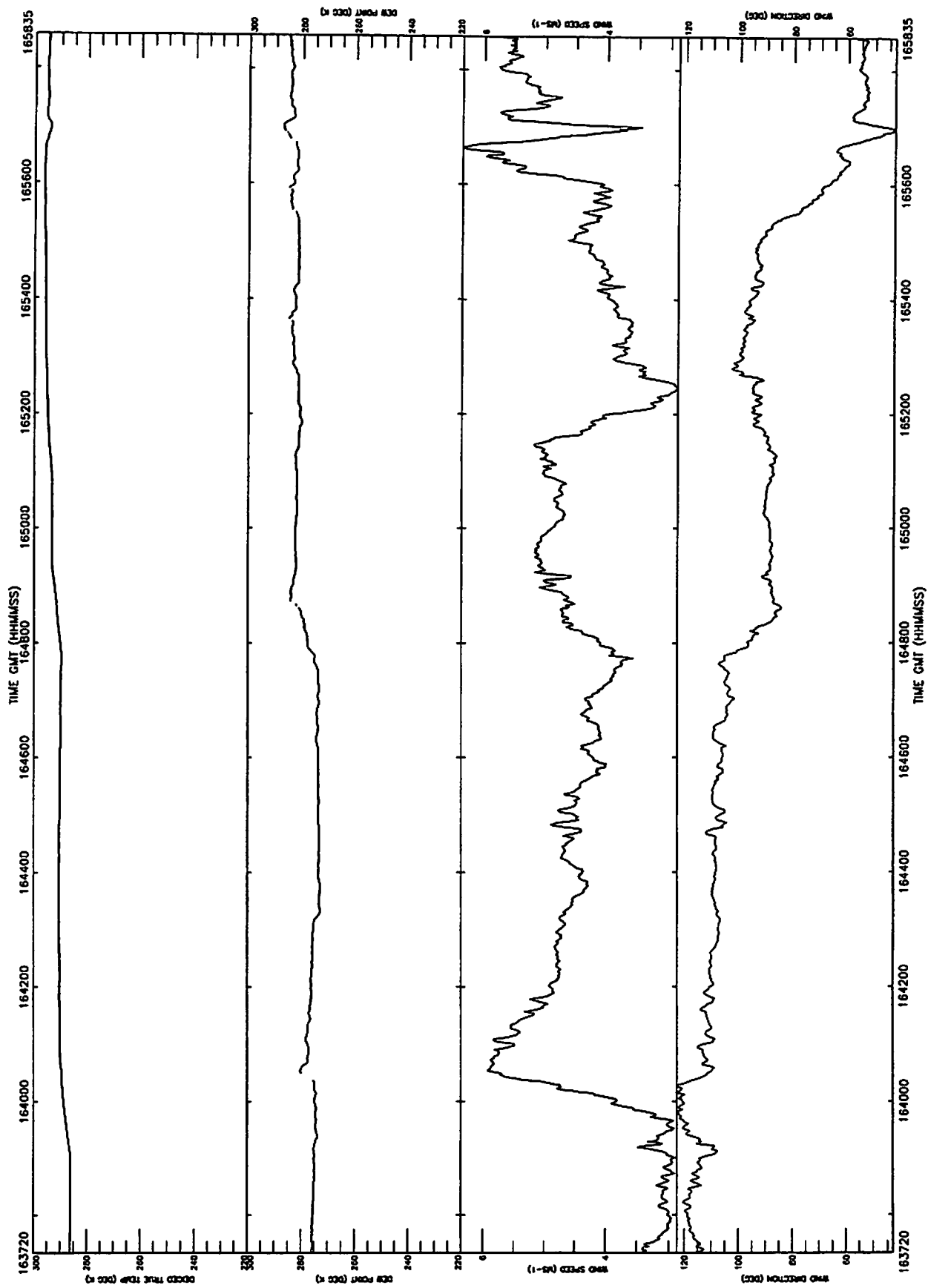
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



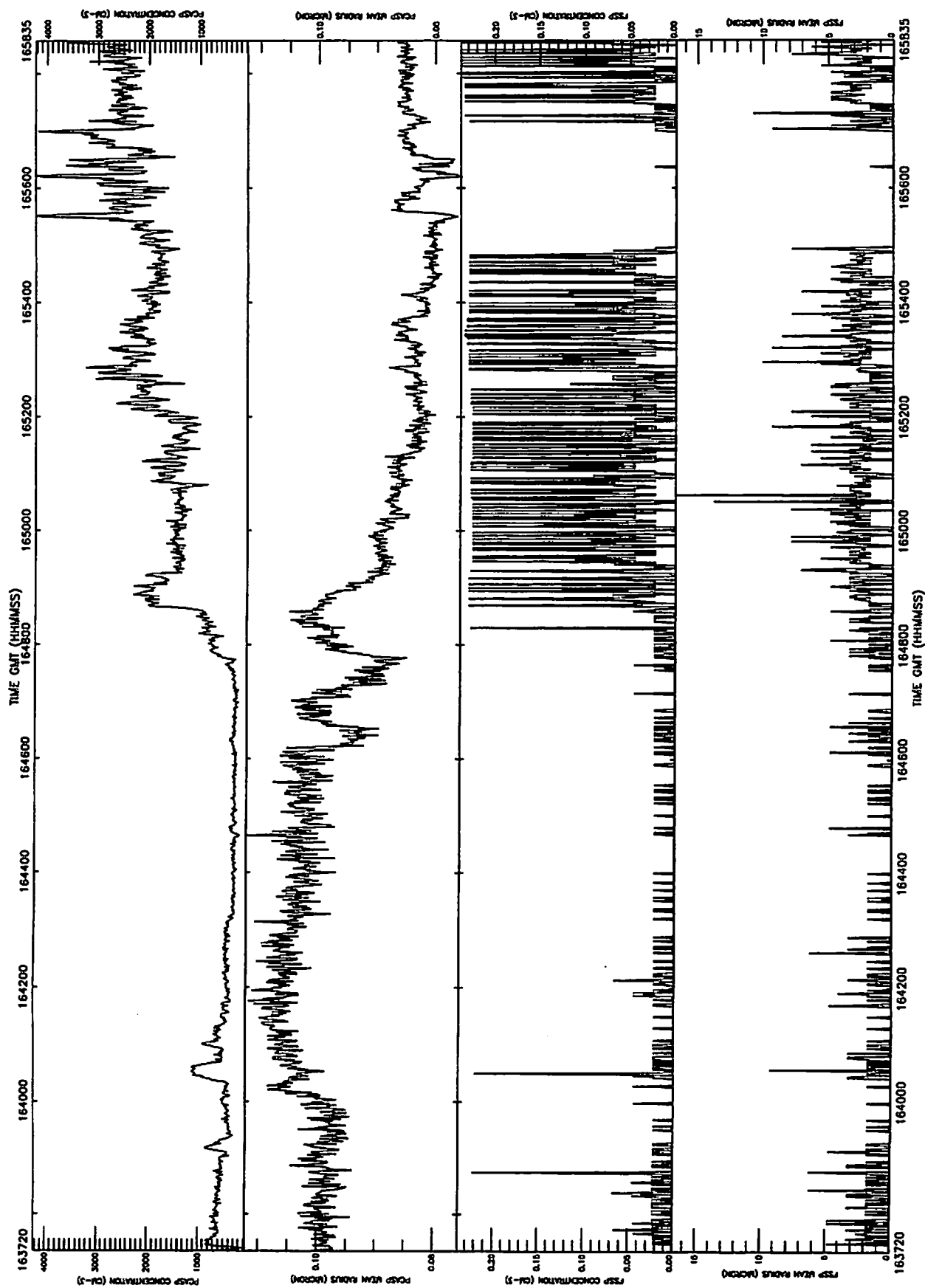
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



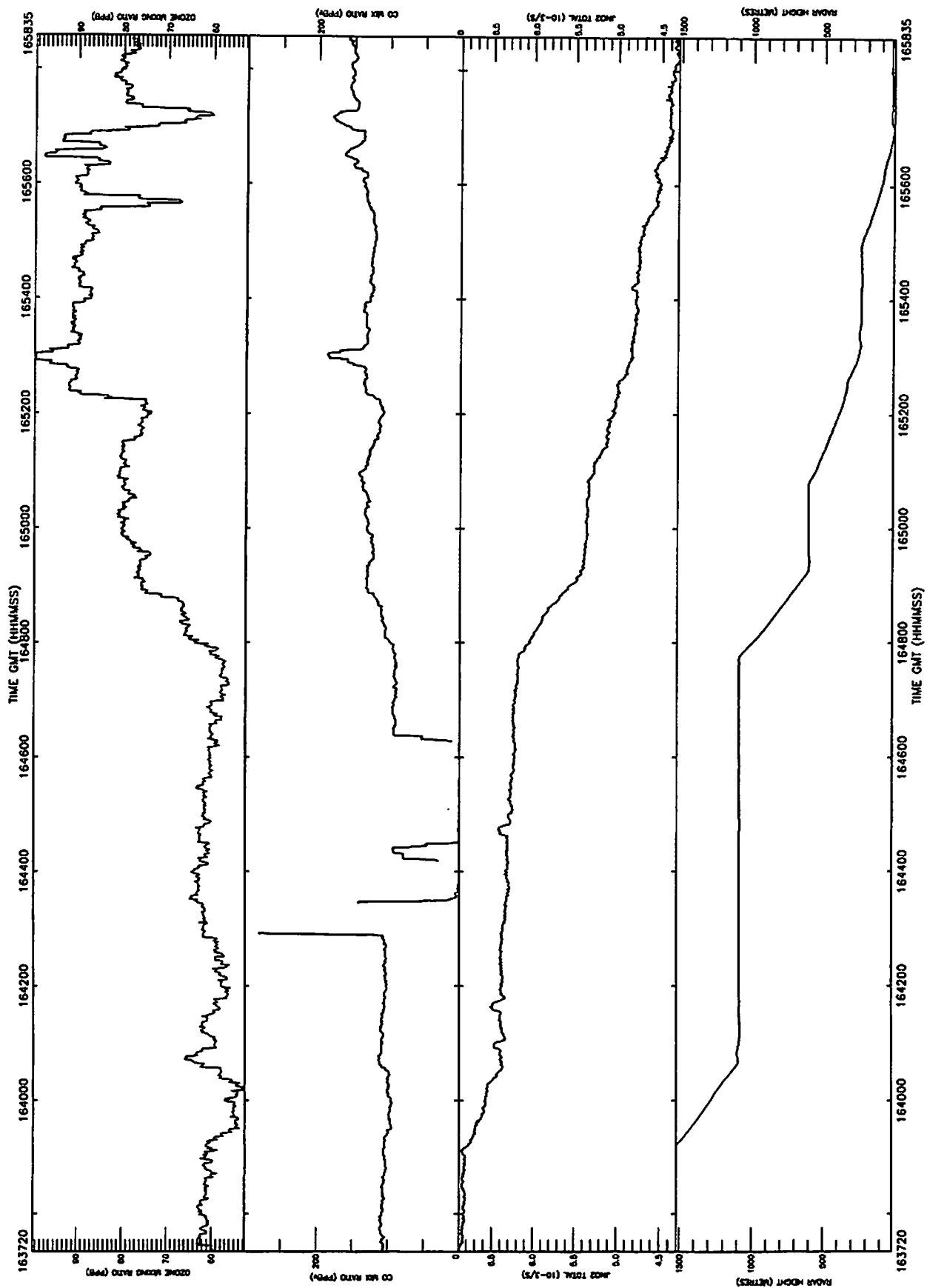
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



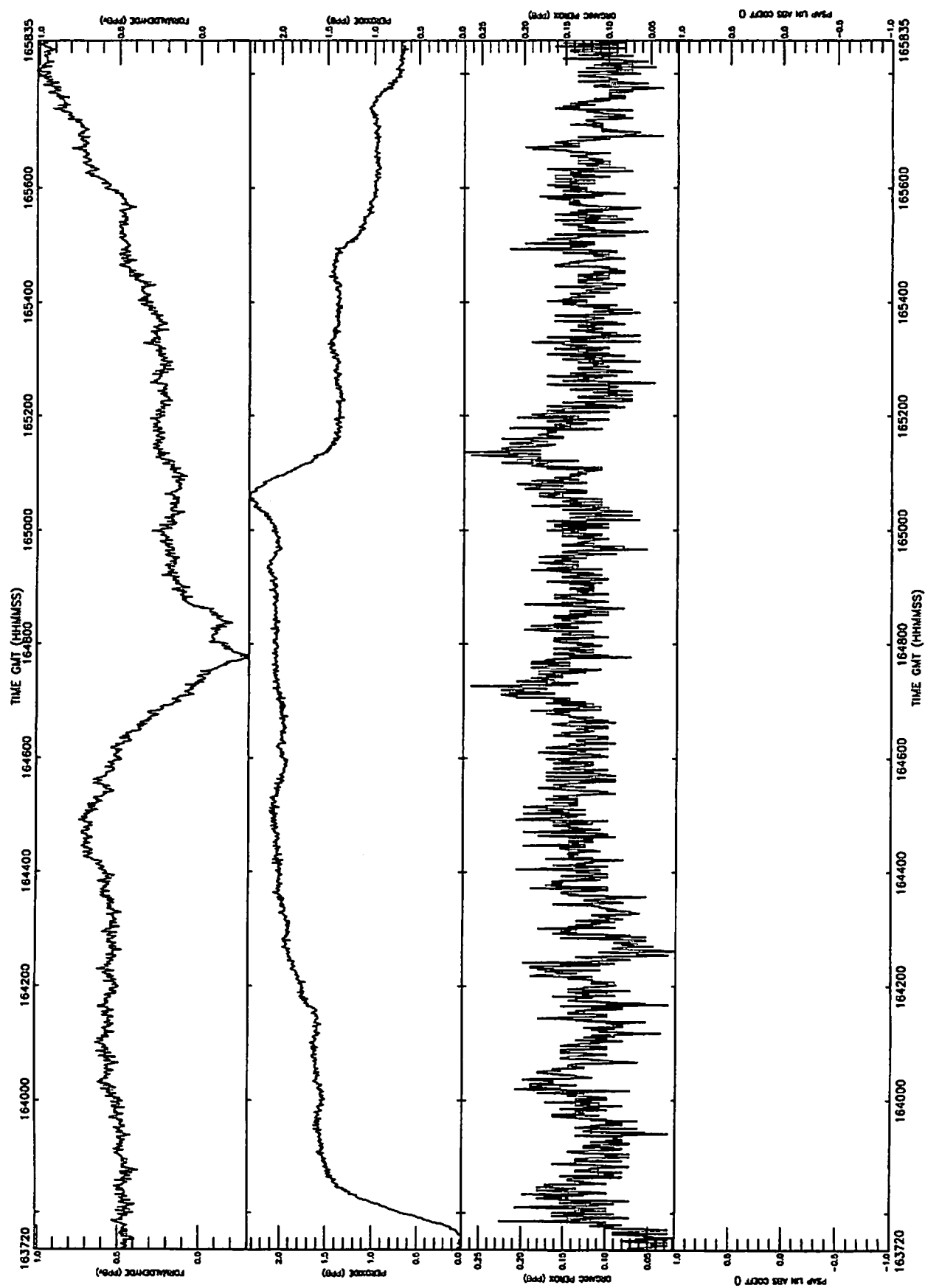
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 12-Dec-1997 17:08



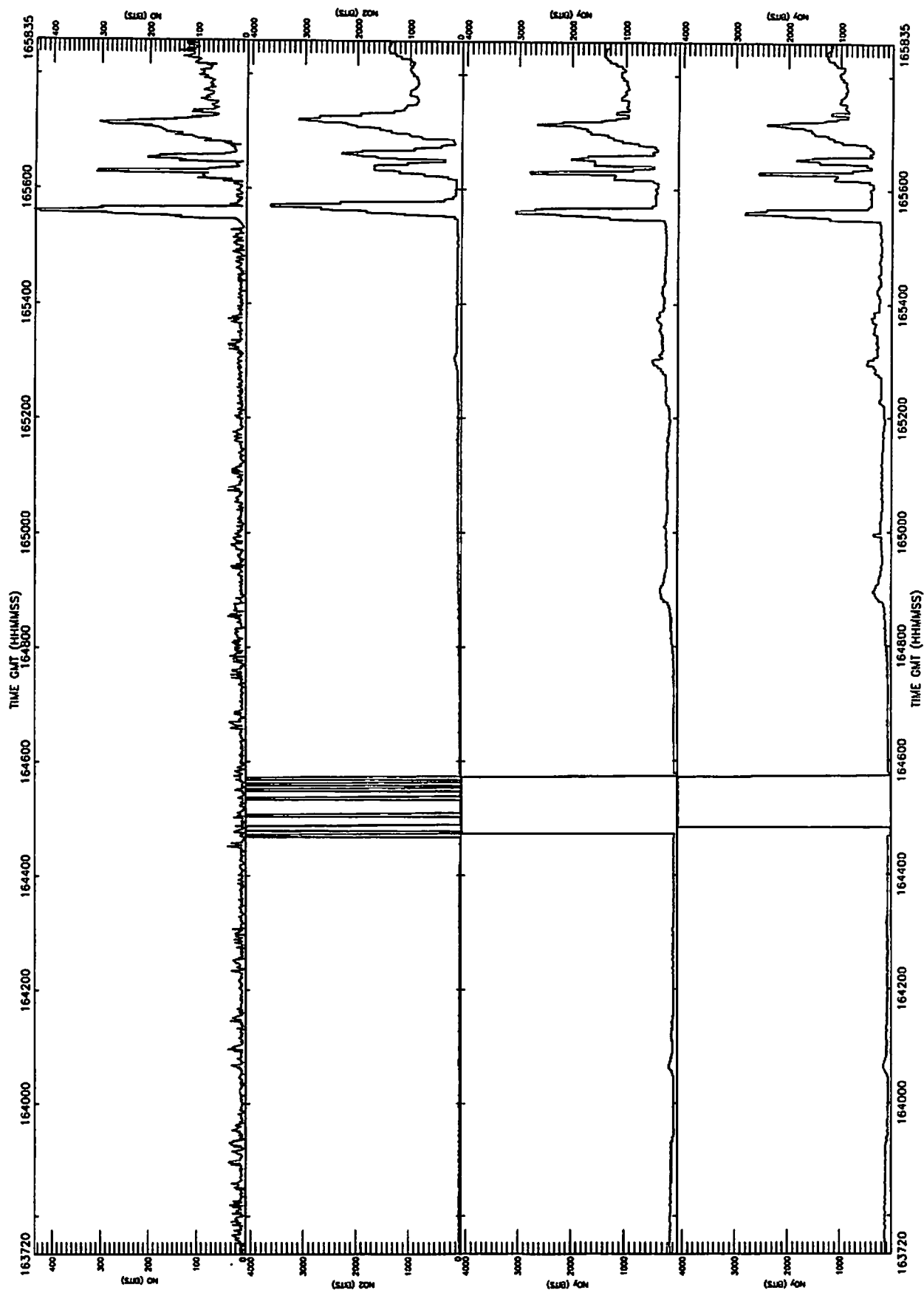
A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:06



A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 Plotted 9-Dec-1997 17:07



A572 19-AUG-97 R45-R49,P46-P49 5000'-100' From 163720-165835 *Plotted 12-Dec-1997 17:08*

STATIC PRESSURE (MB)

No of obs 1276
Mean 935.398
Standard dev 52.6931
Max value 1018.87
Min value 849.609

DEICED TRUE TEMP (DEG K)

No of obs 1276
Mean 291.856
Standard dev 3.10623
Max value 296.390
Min value 286.071

DEW POINT (DEG K)

No of obs 1276
Mean 278.589
Standard dev 4.10277
Max value 287.182
Min value 272.765

OZONE MIXING RATIO (PPB)

No of obs 1276
Mean 70.8023
Standard dev 12.4339
Max value 99.4827
Min value 52.7241

PCASP CONCENTRATION (CM-3)

No of obs 1276
Mean 1215.99
Standard dev 887.512
Max value 4229.20
Min value 78.0812

FSSP CONCENTRATION (CM-3)

No of obs 1276
Mean 3.169045e-02
Standard dev 6.362535e-02
Max value 0.238170
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1276
Mean 768.600
Standard dev 478.903
Max value 1522.15
Min value 15.2598

CORRECTED LATITUDE (DEGREES)

No of obs 1276
Mean 52.8831
Standard dev 0.304133
Max value 53.4153
Min value 52.3541

CORRECTED LONGITUDE (DEGREES)

No of obs 1276
Mean 2.22634
Standard dev 0.163998
Max value 2.46328
Min value 1.94870

NORTHWARD WIND COMPT (M S-1)

No of obs 1276
Mean 0.390274
Standard dev 1.45278
Max value 2.53127
Min value -3.33460

EASTWARD WIND COMPT (M S-1)

No of obs 1276
Mean -4.13202
Standard dev 0.721589
Max value -2.38525
Min value -5.70193

VERTICAL WIND COMPT (M S-1)

No of obs 1276
Mean 0.390799
Standard dev 0.366011
Max value 1.65897
Min value -0.549355

WIND SPEED (MS-1)

No of obs 1276
Mean 4.38963
Standard dev 0.765994
Max value 6.35233
Min value 2.86907

WIND DIRECTION (DEG)

Mean 95.3956

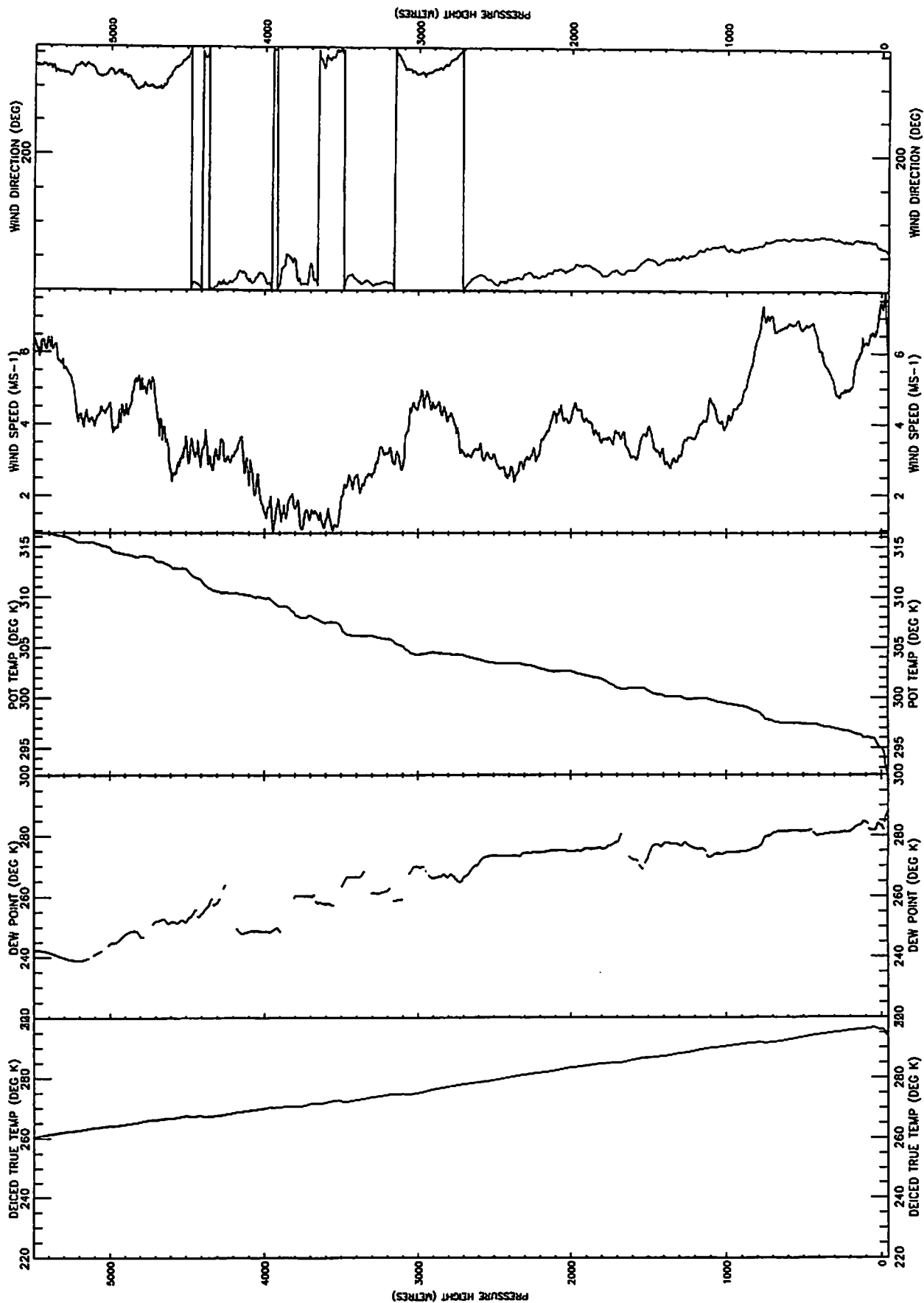
TRUE AIR SPEED (M S-1)

No of obs 1276
Mean 98.4328
Standard dev 2.43419
Max value 104.748
Min value 92.8942

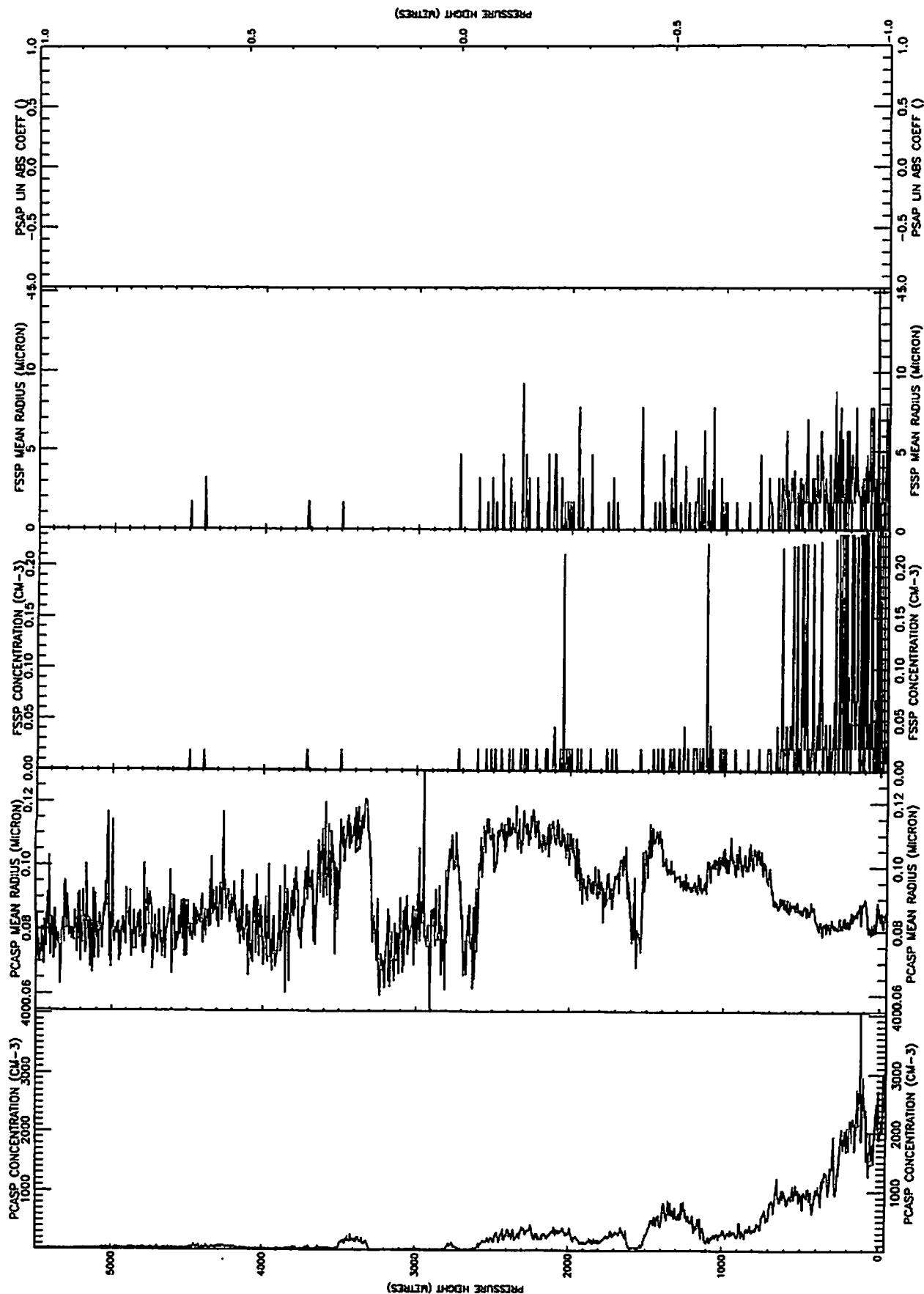
HEADING (DEG)

Mean 163.877

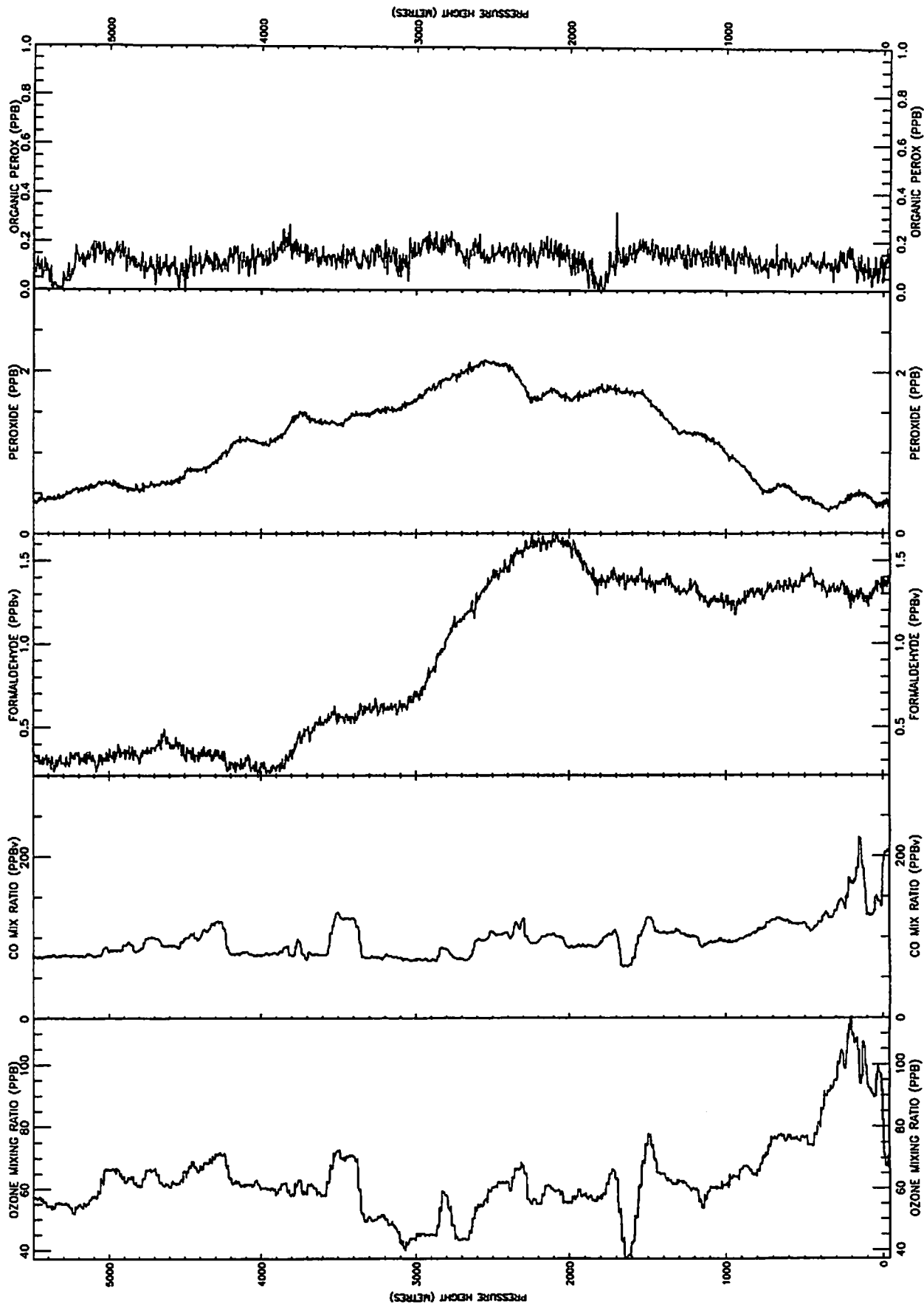
A572 19-AUG-97 P50 50'-FL100 From 170010-171955 Plotted 9-Dec-1997 17:12



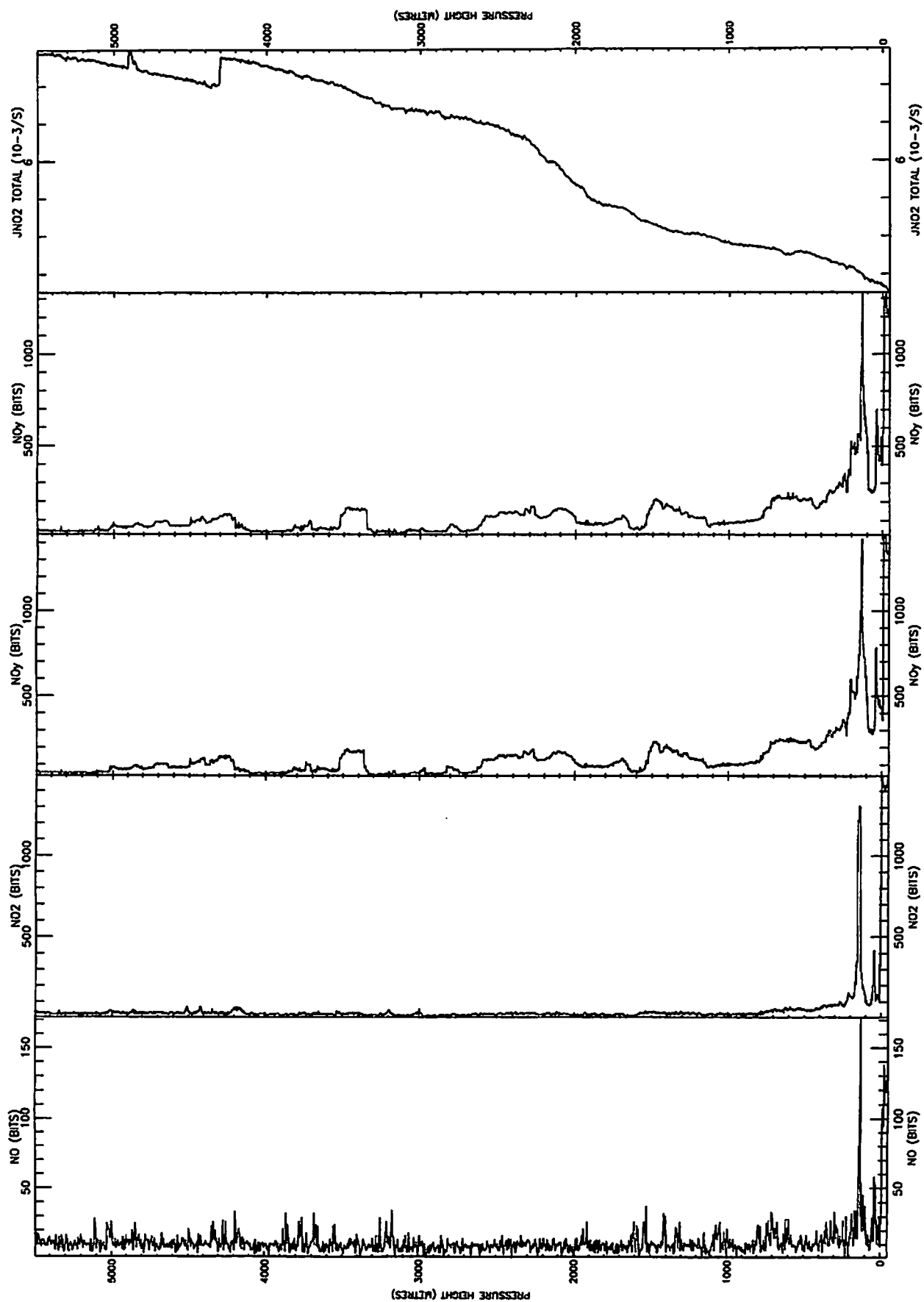
A572 19-AUG-97 P50 50'-FL100 From 170010-171955 Plotted 12-Dec-1997 17:13



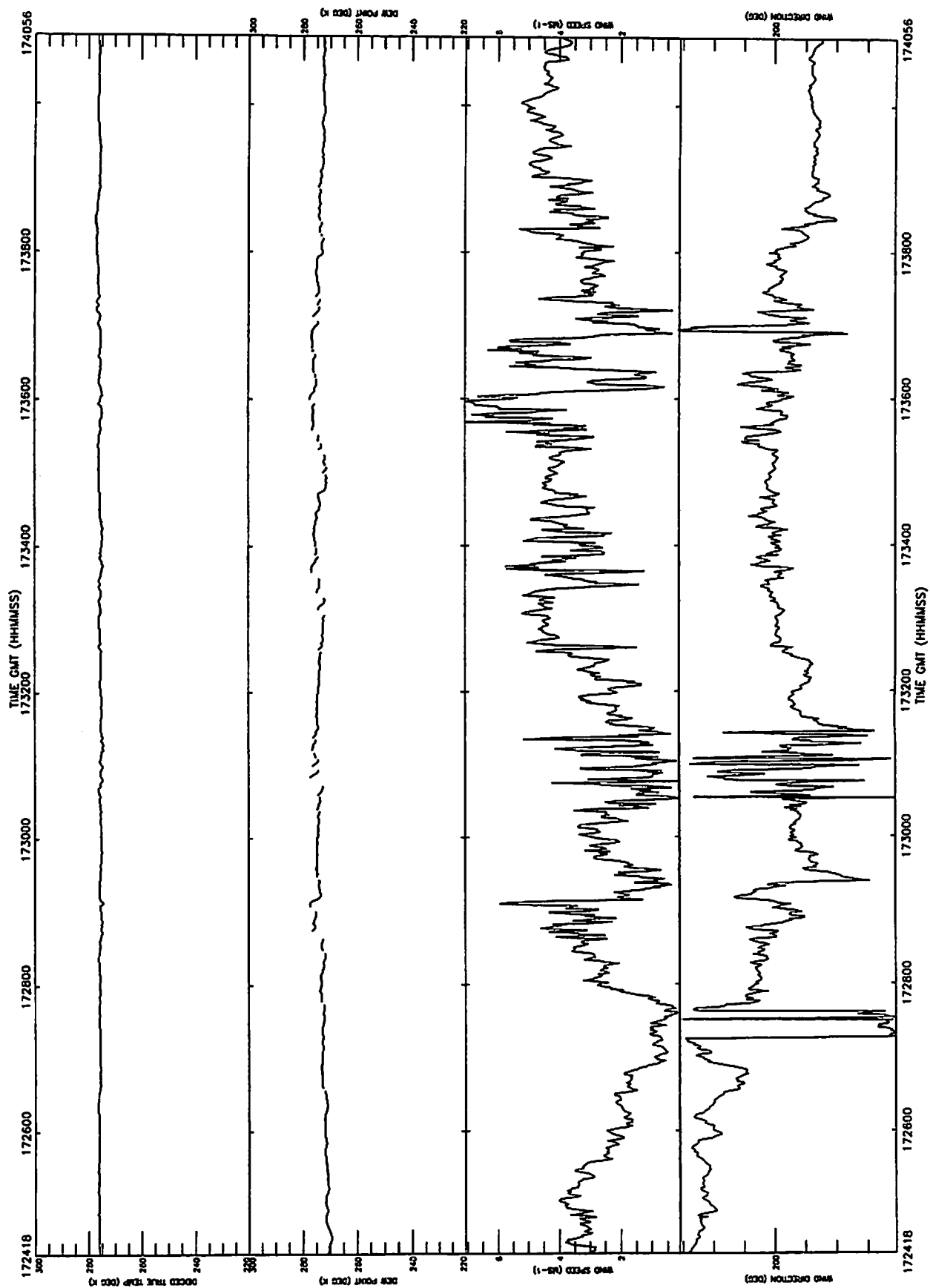
A572 19-AUG-97 P50 50'-FL100 From 170010-171955 Plotted 9-Dec-1997 17:12



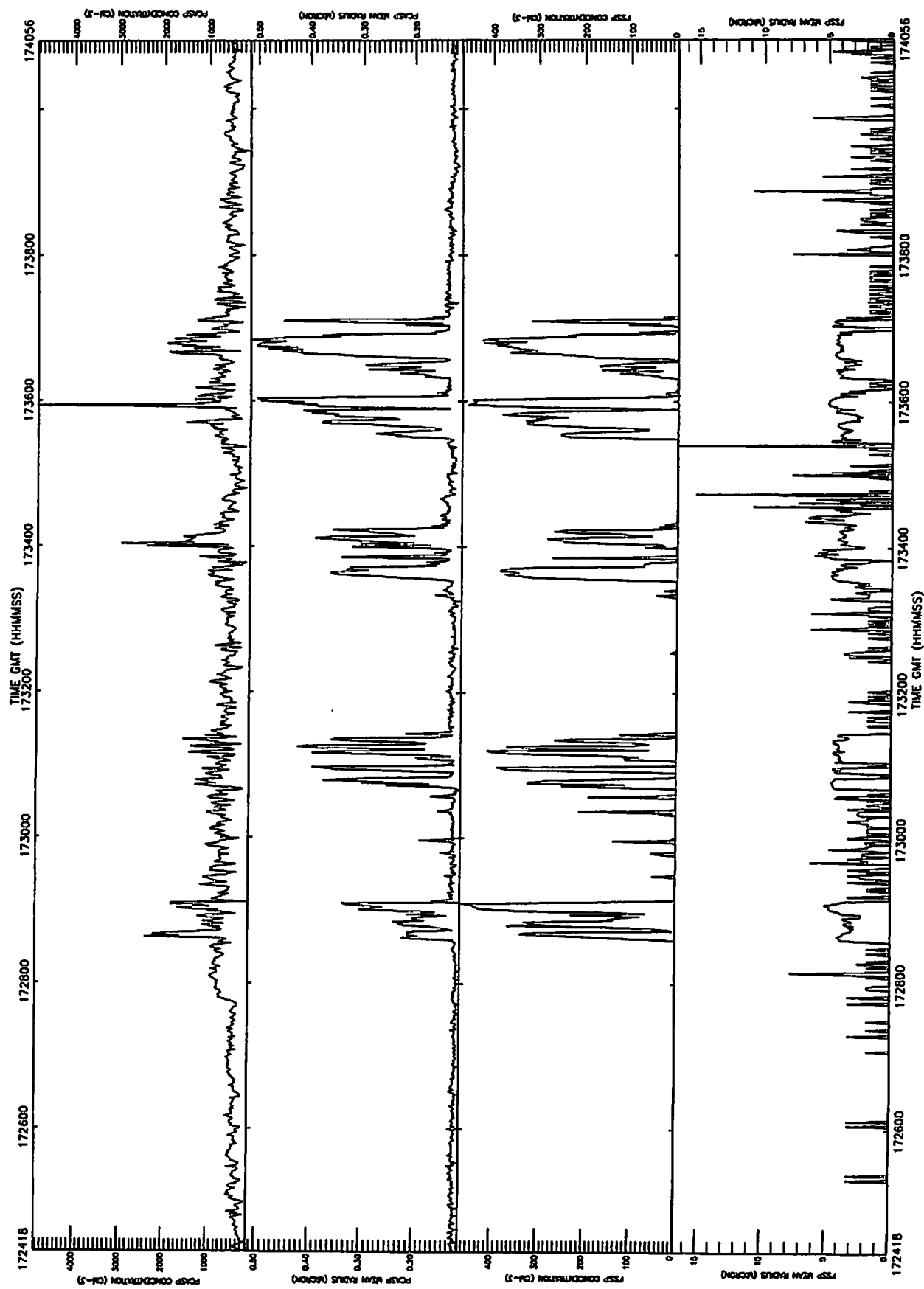
A572 19-AUG-97 P50 50'-FL100 From 170010-171955 Plotted 9-Dec-1997 17:12



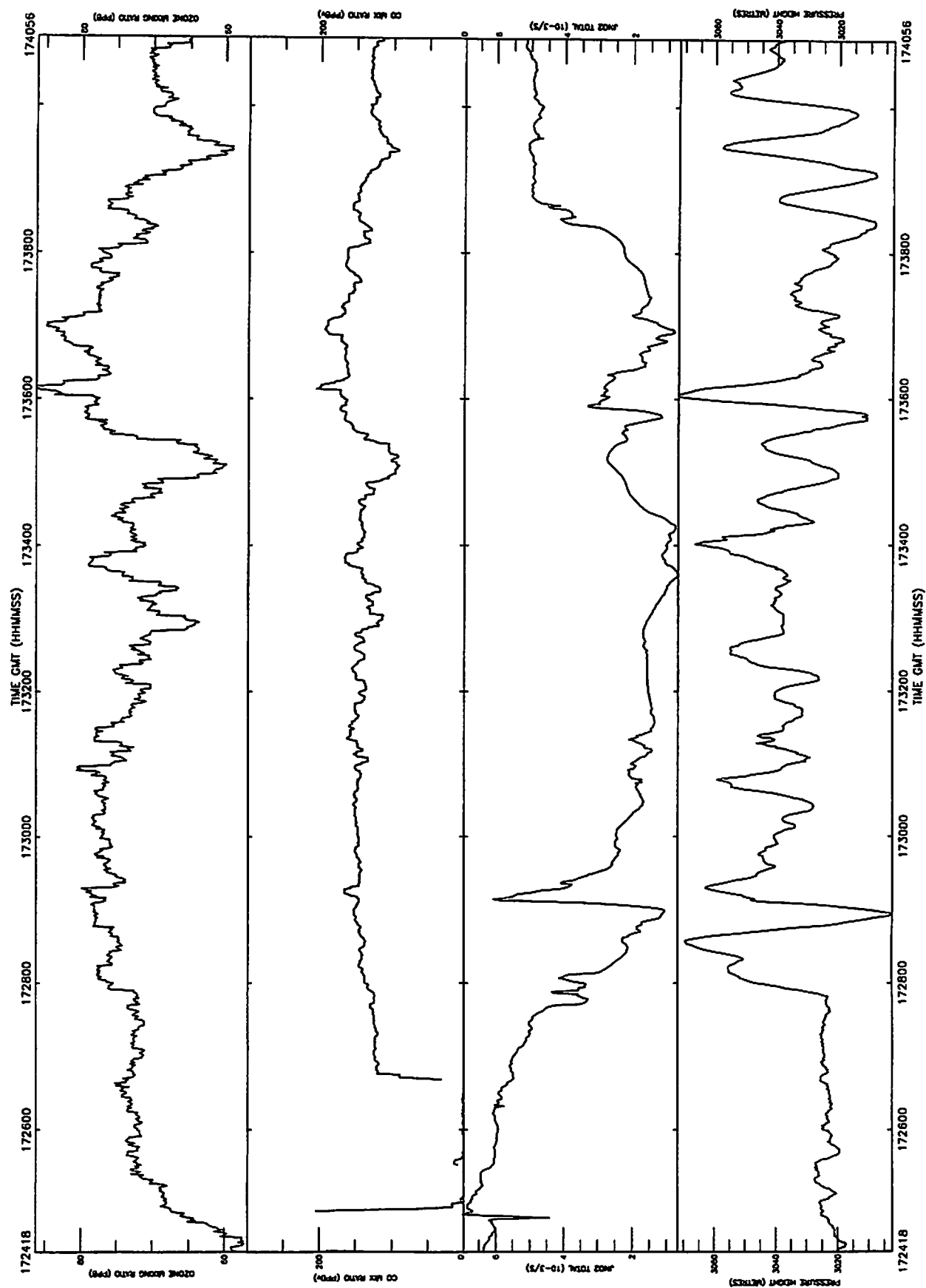
A572 19-AUG-97 R50 FL100 From 172418-174056 Plotted 9-Dec-1997 17:17



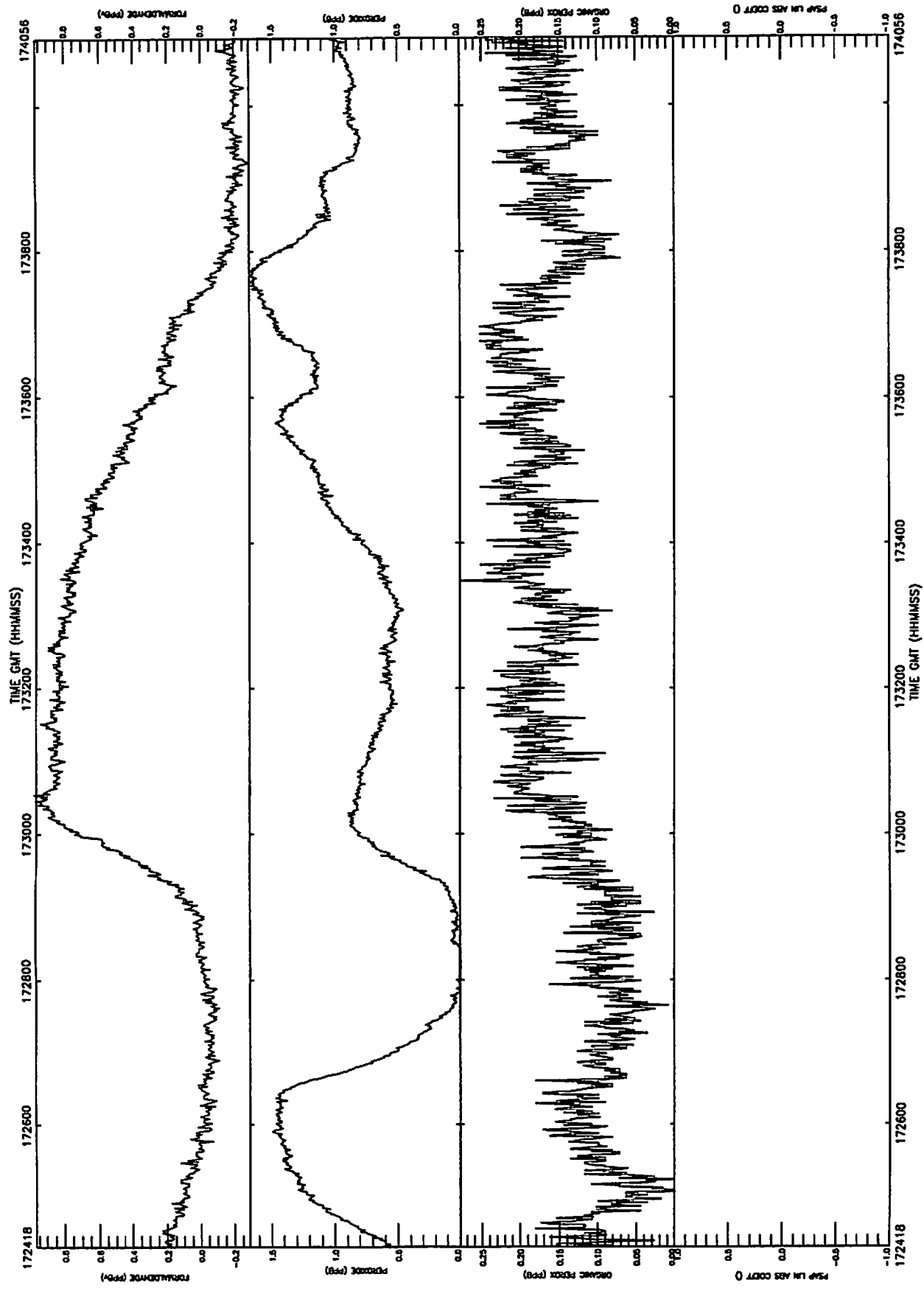
A572 19-AUG-97 R50 FL100 From 172418-174056 Plotted 12-Dec-1997 17:17



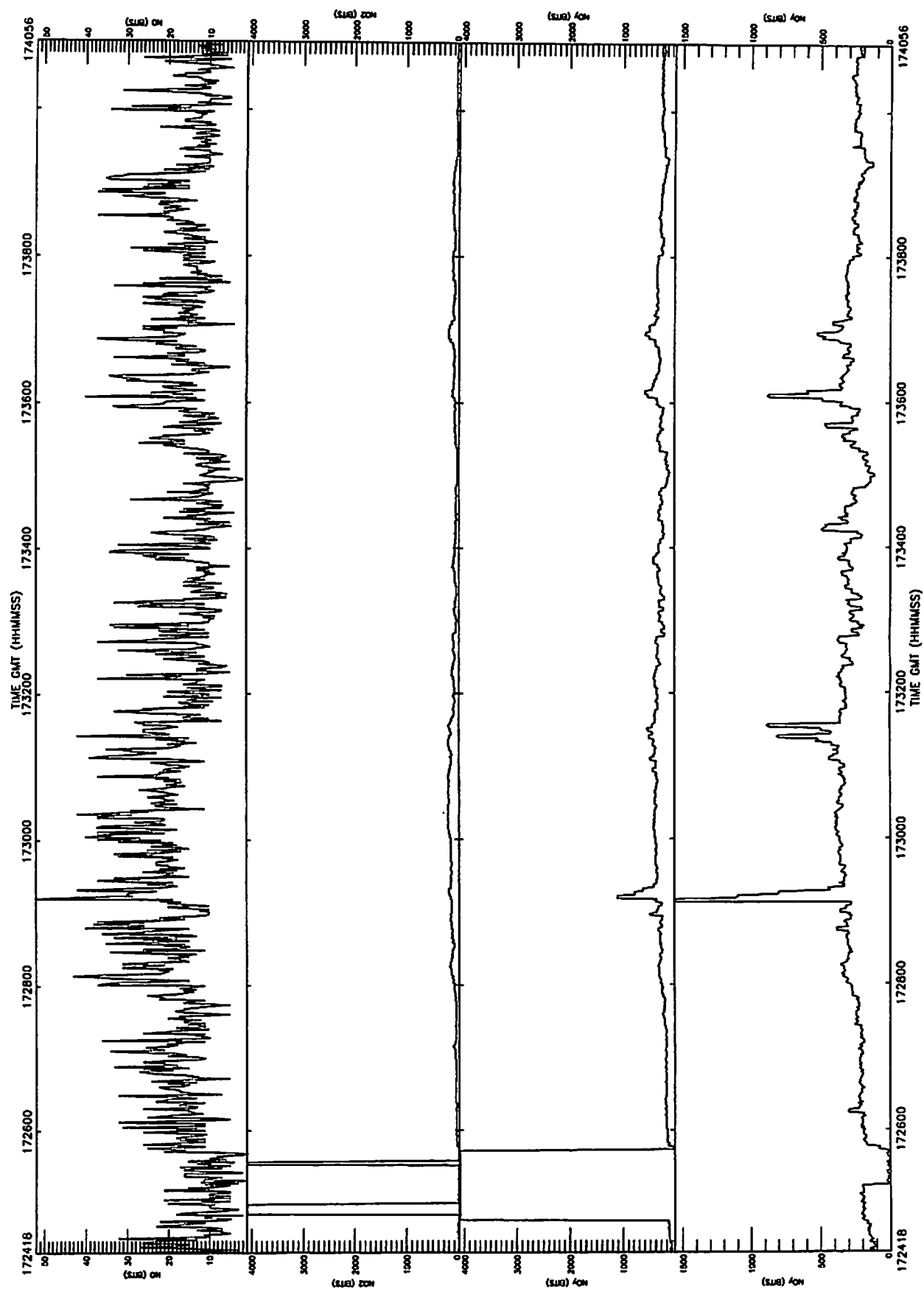
A572 19-AUG-97 R50 FL100 From 172418-174056 Plotted 9-Dec-1997 17:17



A572 19-AUG-97 R50 FL100 From 172418-174056 Plotted 9-Dec-1997 17:17



A572 19-AUG-97 R50 FL100 From 172418-174056 Plotted 9-Dec-1997 17:17



A572 19-AUG-97 R50 FL100 From 172418-174056 *Plotted 12-Dec-1997 17:17*

STATIC PRESSURE (MB)

No of obs 999
Mean 698.078
Standard dev 1.16652
Max value 700.864
Min value 694.695

DEICED TRUE TEMP (DEG K)

No of obs 999
Mean 275.668
Standard dev 0.526538
Max value 277.118
Min value 274.206

DEW POINT (DEG K)

No of obs 999
Mean 273.536
Standard dev 1.63137
Max value 277.442
Min value 269.454

OZONE MIXING RATIO (PPB)

No of obs 999
Mean 72.8516
Standard dev 5.14776
Max value 86.2603
Min value 56.7079

PCASP CONCENTRATION (CM-3)

No of obs 999
Mean 606.583
Standard dev 322.929
Max value 4841.76
Min value 73.8511

FSSP CONCENTRATION (CM-3)

No of obs 999
Mean 40.2319
Standard dev 100.307
Max value 467.387
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 999
Mean 3033.75
Standard dev 13.1335
Max value 3071.89
Min value 3002.44

CORRECTED LATITUDE (DEGREES)

No of obs 999
Mean 52.2147
Standard dev 0.136177
Max value 52.4263
Min value 51.9448

CORRECTED LONGITUDE (DEGREES)

No of obs 999
Mean -0.958362
Standard dev 0.431128
Max value -0.113098
Min value -1.64517

NORTHWARD WIND COMPT (M S-1)

No of obs 999
Mean 1.86747
Standard dev 2.10856
Max value 6.77810
Min value -3.27122

EASTWARD WIND COMPT (M S-1)

No of obs 999
Mean 0.182909
Standard dev 1.81208
Max value 4.43996
Min value -3.92548

VERTICAL WIND COMPT (M S-1)

No of obs 999
Mean 0.324963
Standard dev 0.872573
Max value 6.20923
Min value -3.04935

WIND SPEED (MS-1)

No of obs 999
Mean 3.07428
Standard dev 1.33918
Max value 7.08808
Min value 9.624231e-02

WIND DIRECTION (DEG)

Mean 185.594

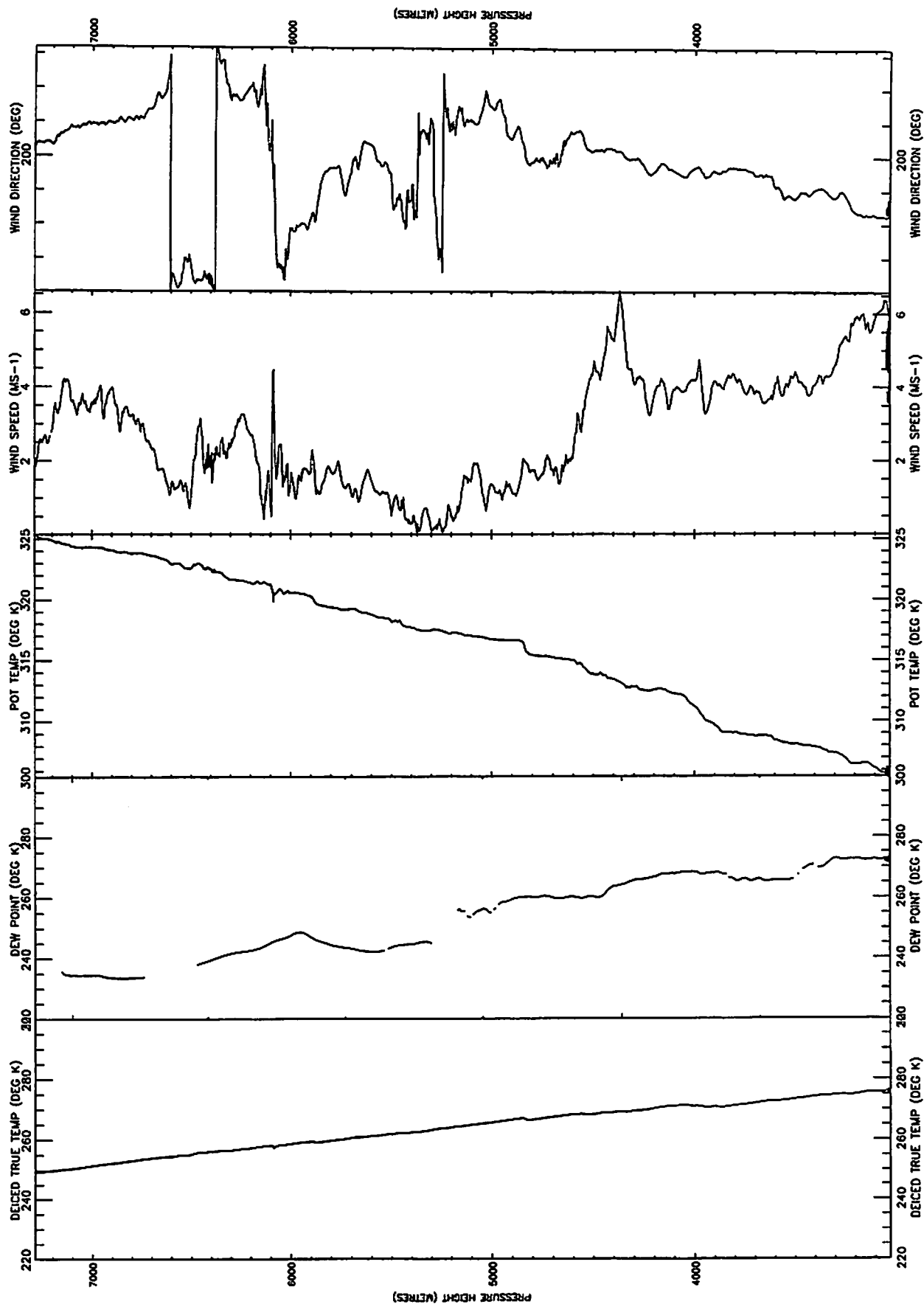
TRUE AIR SPEED (M S-1)

No of obs 999
Mean 121.090
Standard dev 16.2925
Max value 152.492
Min value 105.660

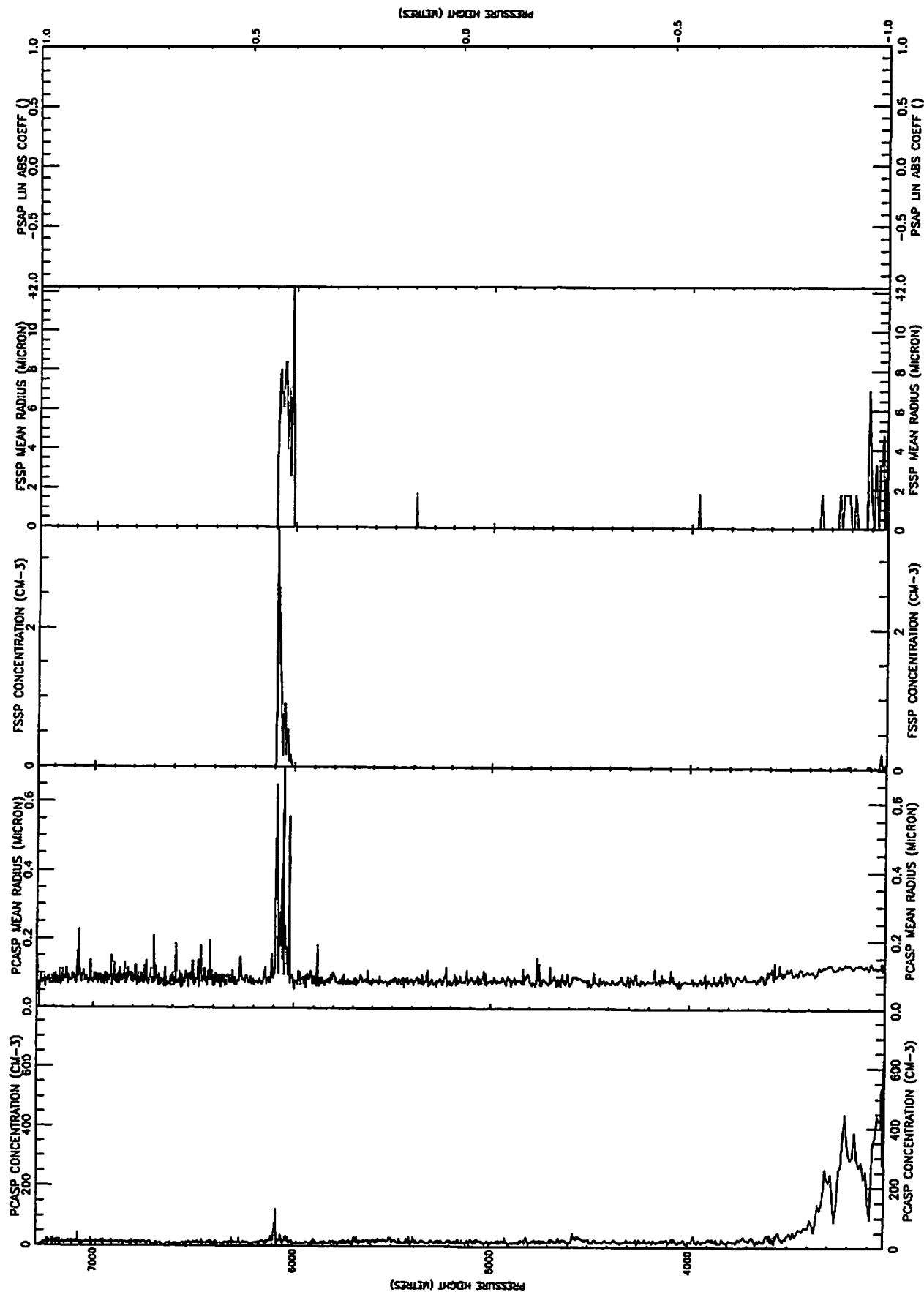
HEADING (DEG)

Mean 242.872

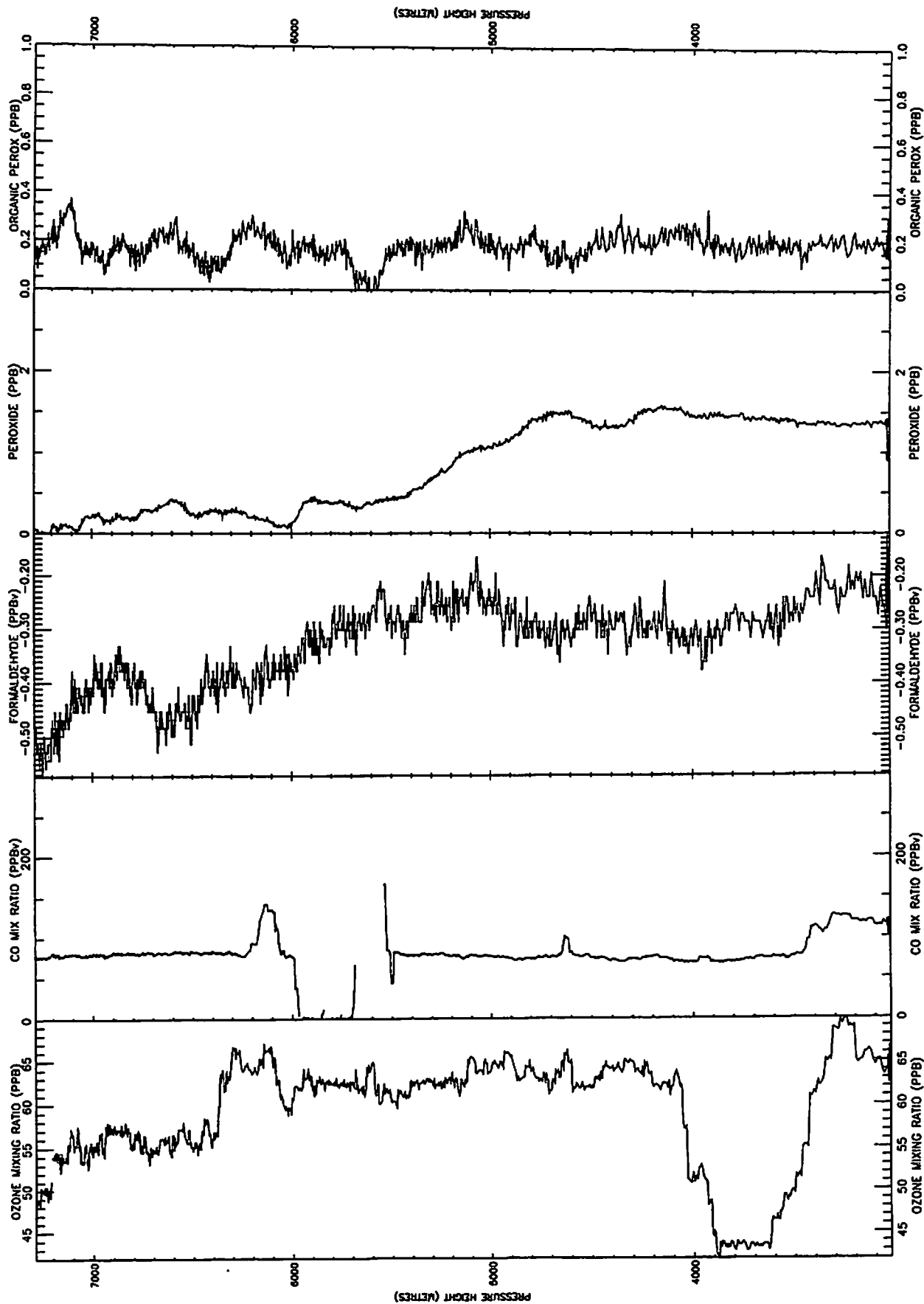
A572 19-AUG-97 climb FL100-FL240 From 174056-175913 Plotted 9-Dec-1997 17:23



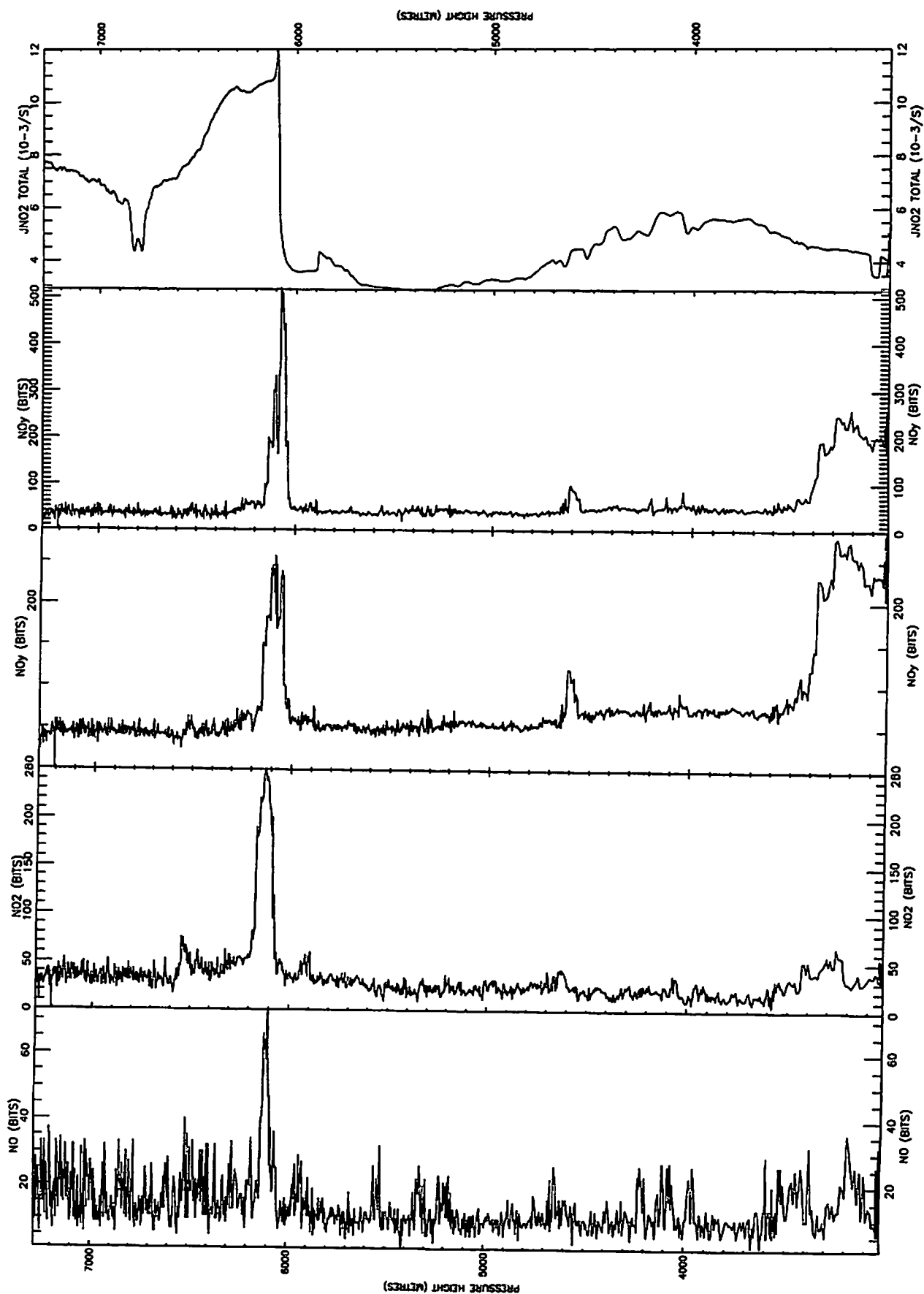
A572 19-AUG-97 climb FL100-FL240 From 174056-175913 Plotted 12-Dec-1997 17:21



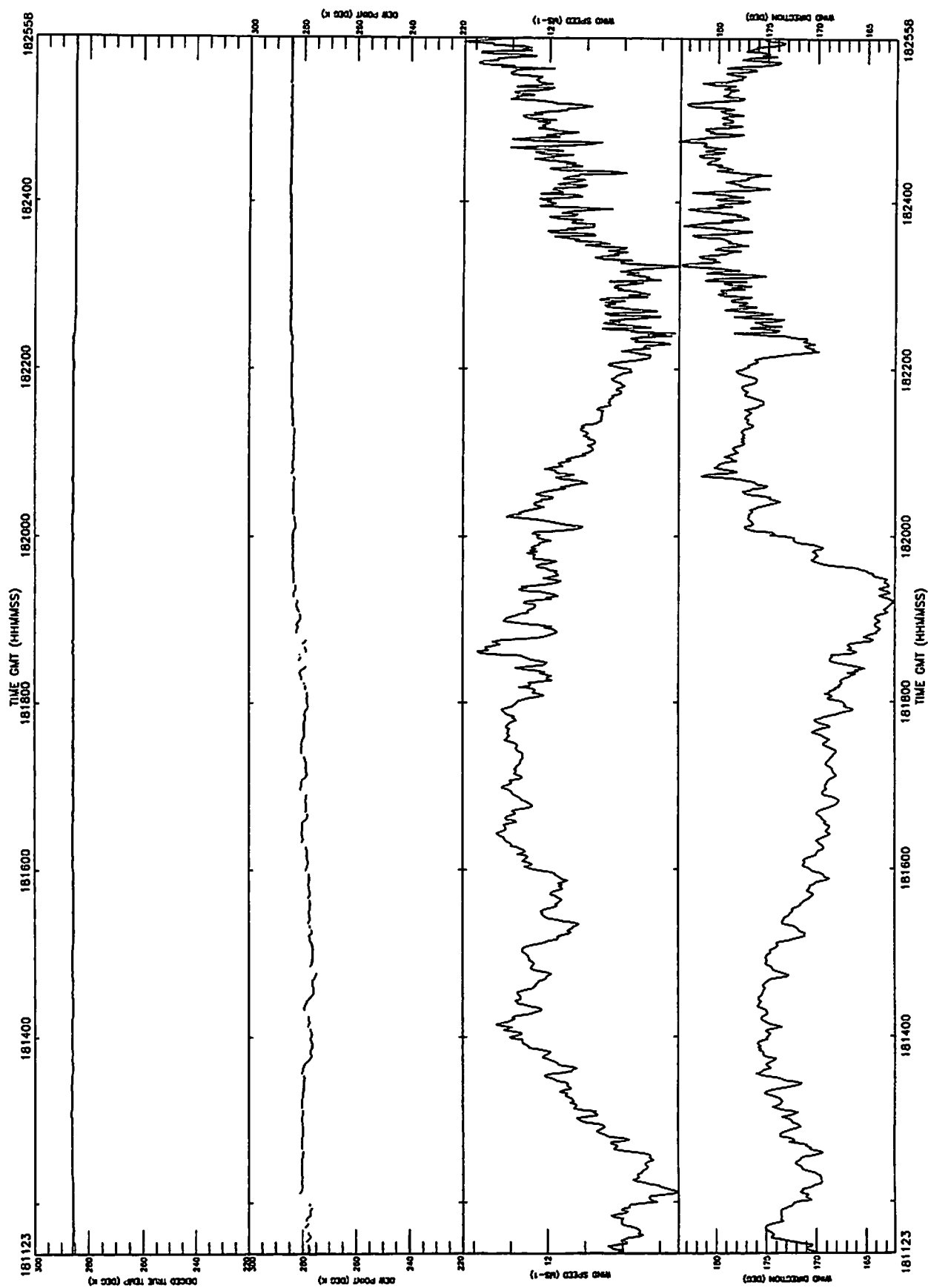
A572 19-AUG-97 climb FL100-FL240 From 174056-175913 Plotted 9-Dec-1997 17:23



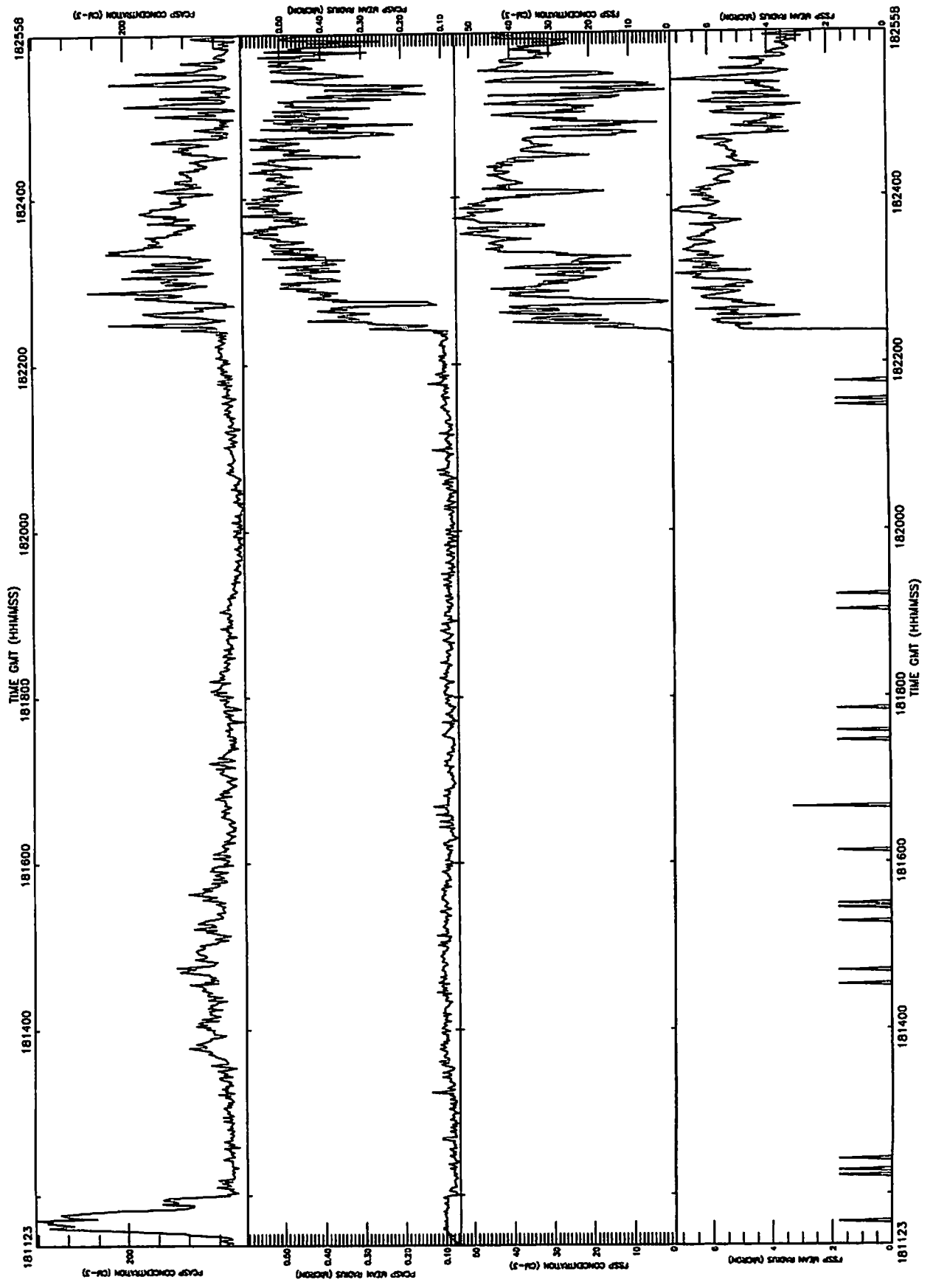
A572 19-AUG-97 climb FL100-FL240 From 174056-175913 Plotted 9-Dec-1997 17:23



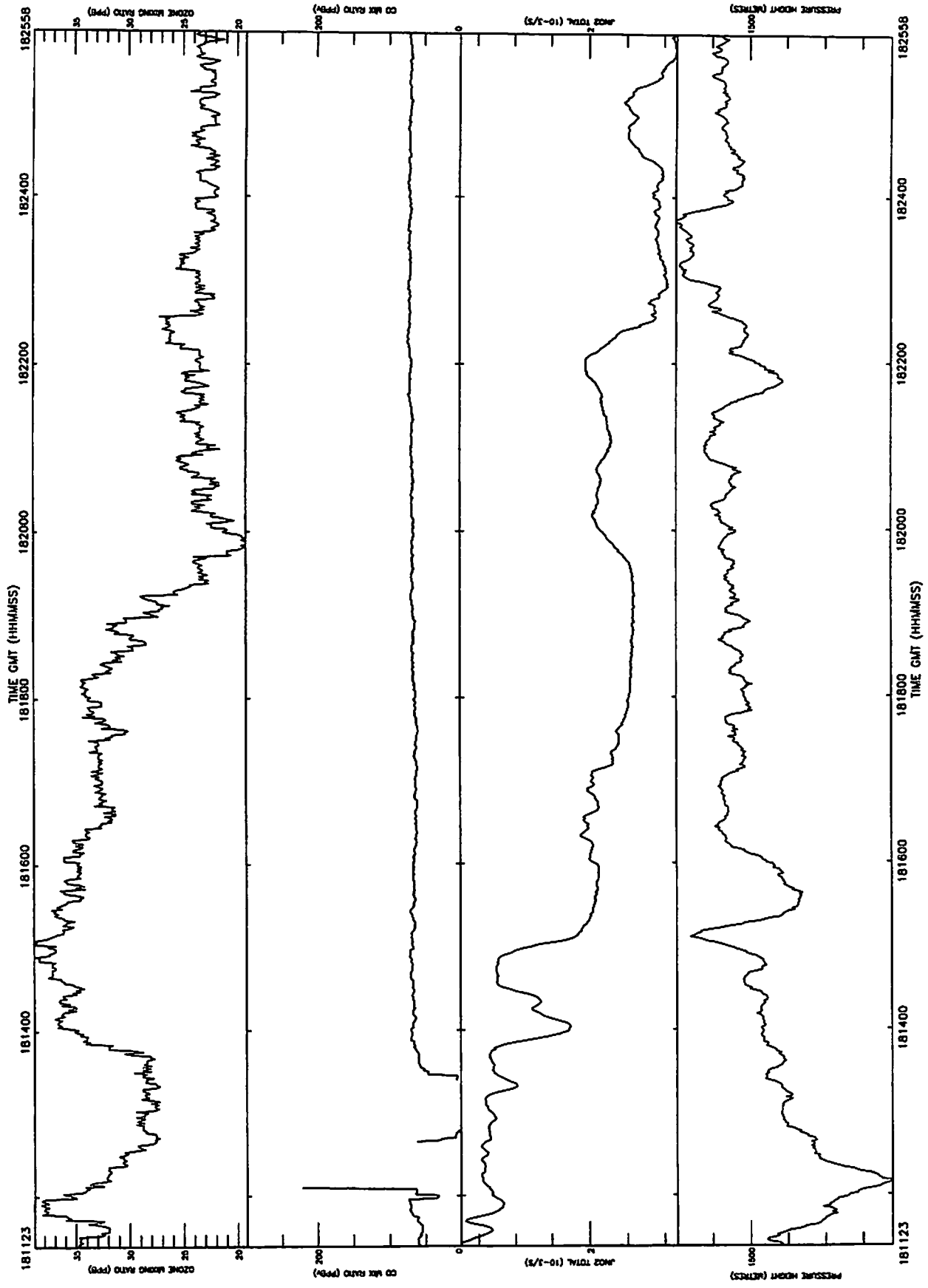
A572 19-AUG-97 R51 5000' From 181123-182558 Plotted 9-Dec-1997 17:25



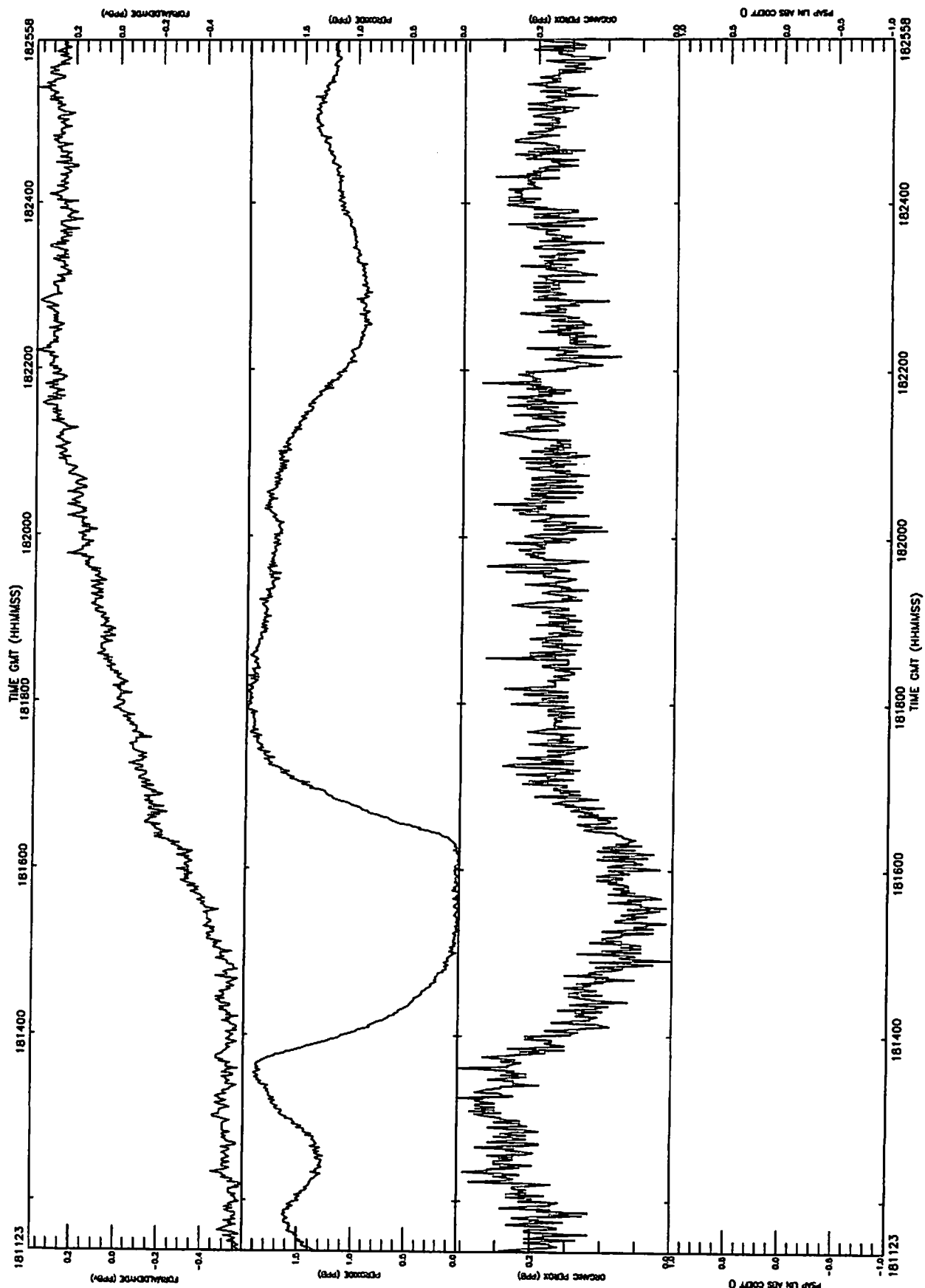
A572 19-AUG-97 R51 5000' From 181123-182558 Plotted 12-Dec-1997 17:22



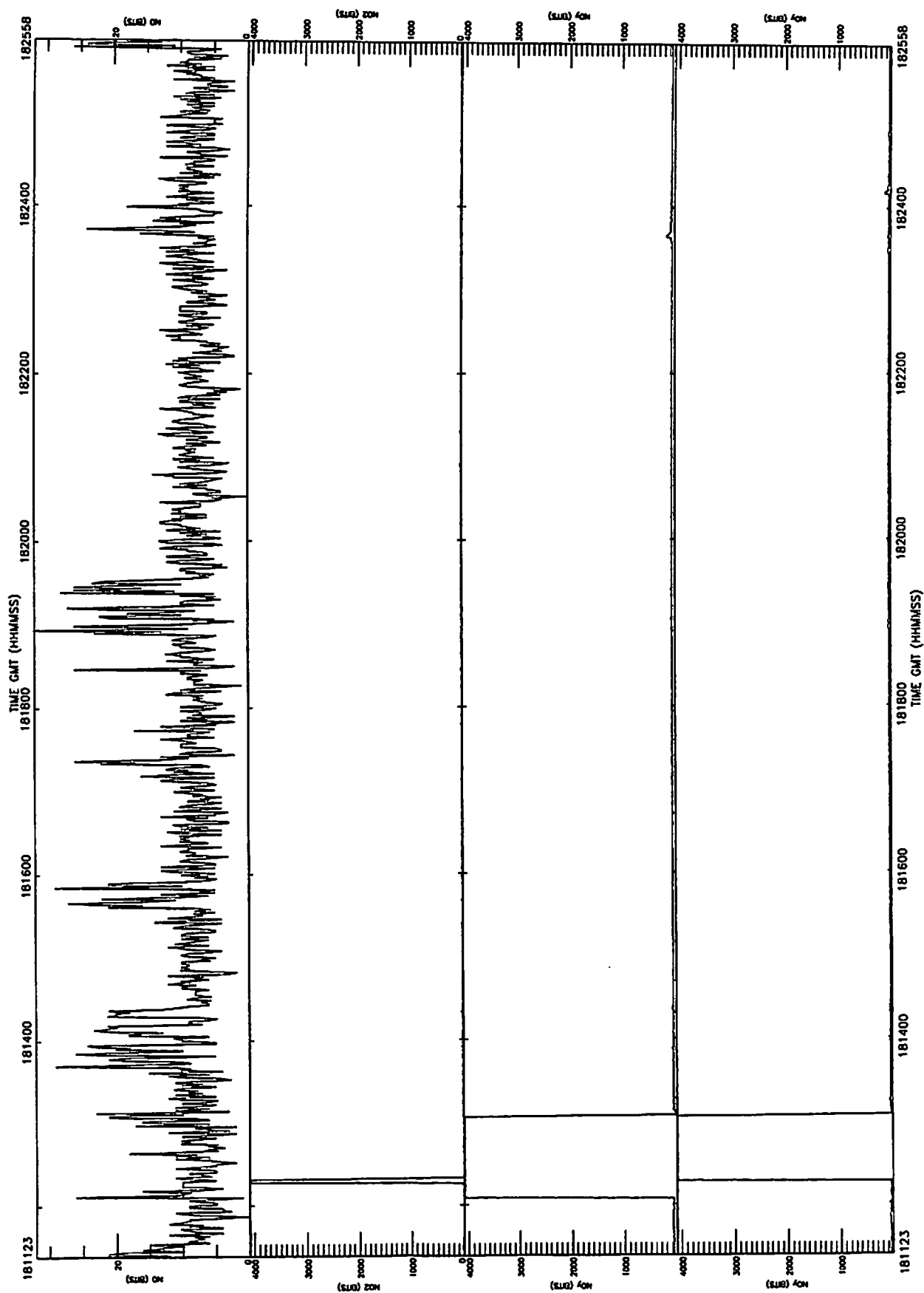
A572 19-AUG-97 R51 5000' From 181123-182558 Plotted 9-Dec-1997 17:25



A572 19-AUG-97 R51 5000' From 181123-182558 Plotted 9-Dec-1997 17:25



A572 19-AUG-97 R51 5000' From 181123-182558 Plotted 9-Dec-1997 17:25



A572 19-AUG-97 R51 5000' From 181123-182558 *Plotted 12-Dec-1997 17:22*

STATIC PRESSURE (MB)

No of obs 876
Mean 845.503
Standard dev 0.518746
Max value 847.519
Min value 844.544

DEICED TRUE TEMP (DEG K)

No of obs 876
Mean 285.532
Standard dev 0.394895
Max value 286.333
Min value 284.755

DEW POINT (DEG K)

No of obs 876
Mean 281.331
Standard dev 2.98074
Max value 285.089
Min value 274.798

OZONE MIXING RATIO (PPB)

No of obs 876
Mean 28.4522
Standard dev 5.36451
Max value 38.9293
Min value 19.1733

PCASP CONCENTRATION (CM-3)

No of obs 876
Mean 56.2814
Standard dev 50.3646
Max value 353.355
Min value 5.00032

FSSP CONCENTRATION (CM-3)

No of obs 876
Mean 7.98159
Standard dev 15.2374
Max value 53.6755
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 876
Mean 1500.53
Standard dev 4.99821
Max value 1509.77
Min value 1481.11

CORRECTED LATITUDE (DEGREES)

No of obs 876
Mean 52.2298
Standard dev 0.189186
Max value 52.5551
Min value 51.9142

CORRECTED LONGITUDE (DEGREES)

No of obs 876
Mean -5.18288
Standard dev 0.161949
Max value -4.89361
Min value -5.48383

NORTHWARD WIND COMPT (M S-1)

No of obs 876
Mean 11.6814
Standard dev 0.576397
Max value 13.0632
Min value 10.1474

EASTWARD WIND COMPT (M S-1)

No of obs 876
Mean -1.35524
Standard dev 0.988938
Max value 0.809586
Min value -3.77722

VERTICAL WIND COMPT (M S-1)

No of obs 876
Mean 0.236286
Standard dev 0.491082
Max value 2.31730
Min value -0.961227

WIND SPEED (MS-1)

No of obs 876
Mean 11.7995
Standard dev 0.609377
Max value 13.1519
Min value 10.2527

WIND DIRECTION (DEG)

Mean 173.382

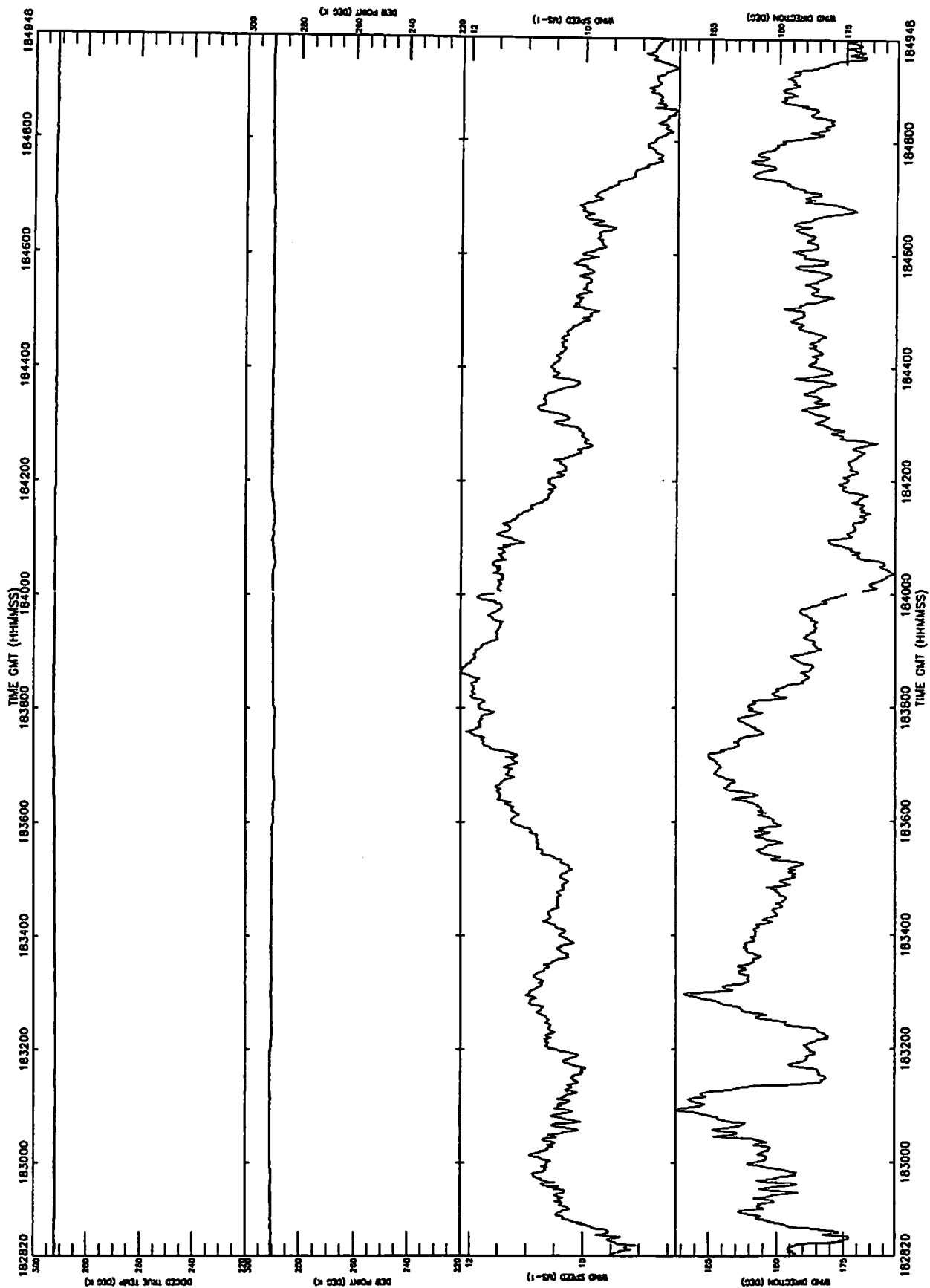
TRUE AIR SPEED (M S-1)

No of obs 876
Mean 103.923
Standard dev 2.64627
Max value 107.676
Min value 97.4356

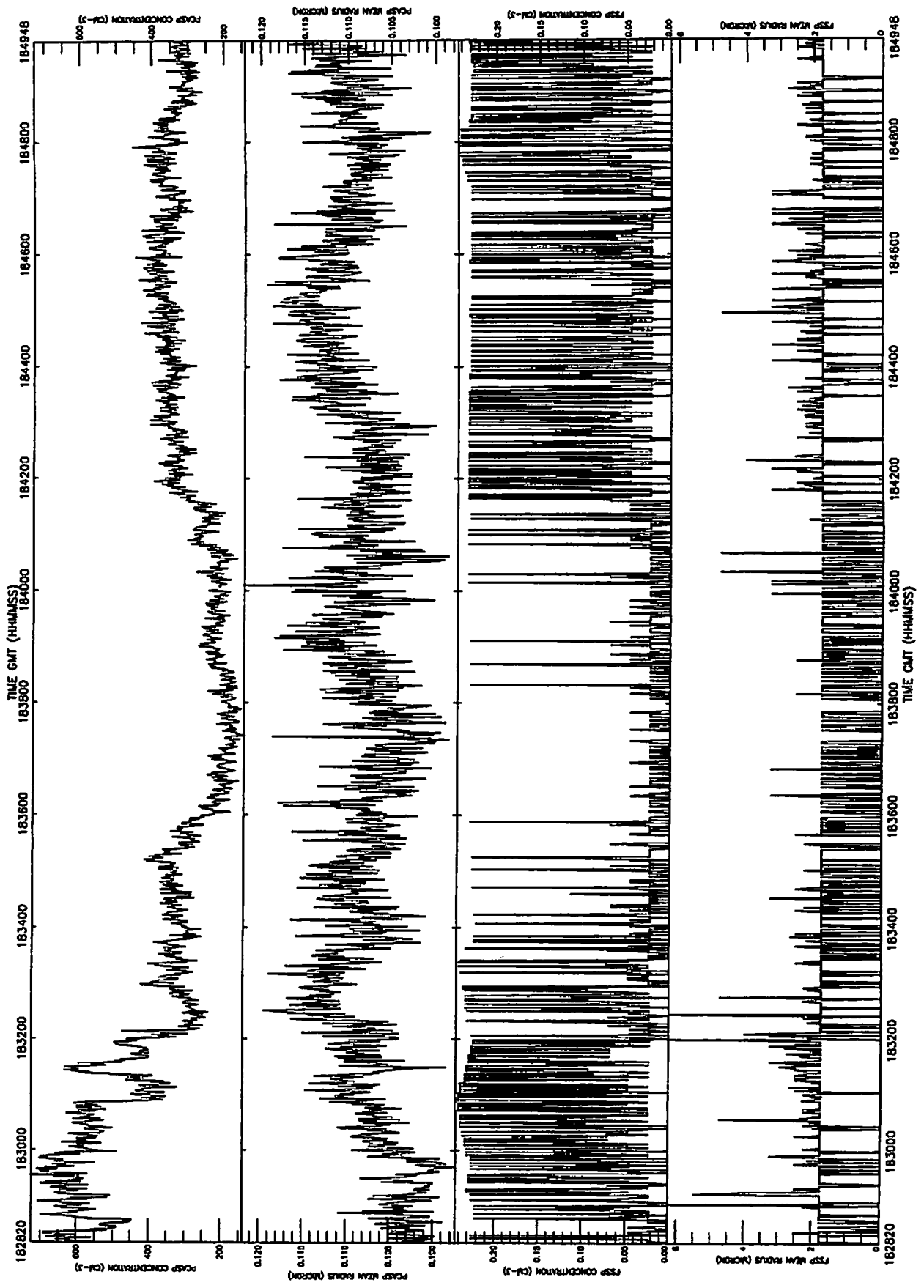
HEADING (DEG)

Mean 209.493

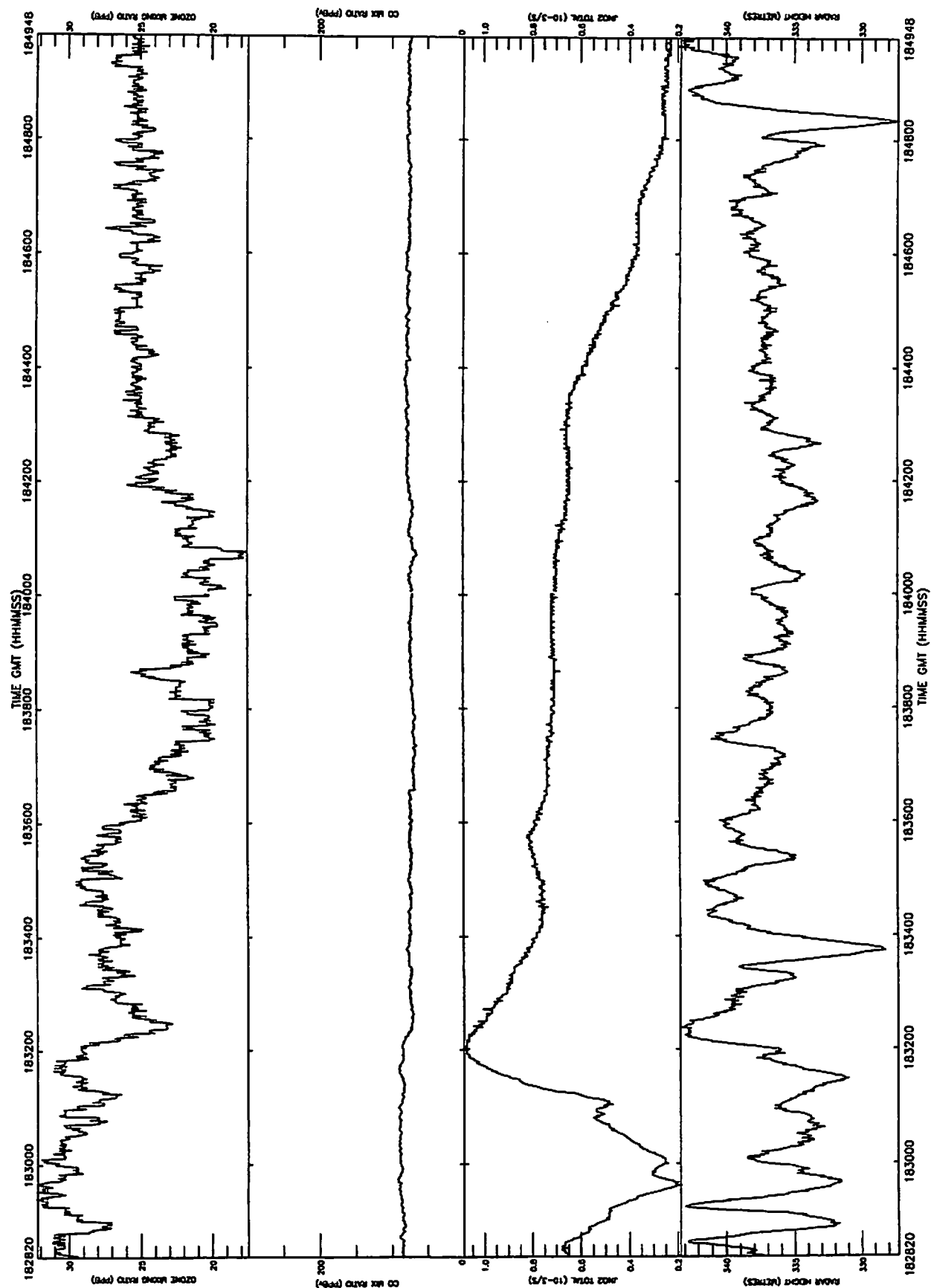
A572 19--AUG--97 R52 1000' From 182820-184948 Plotted 9-Dec-1997 17:29



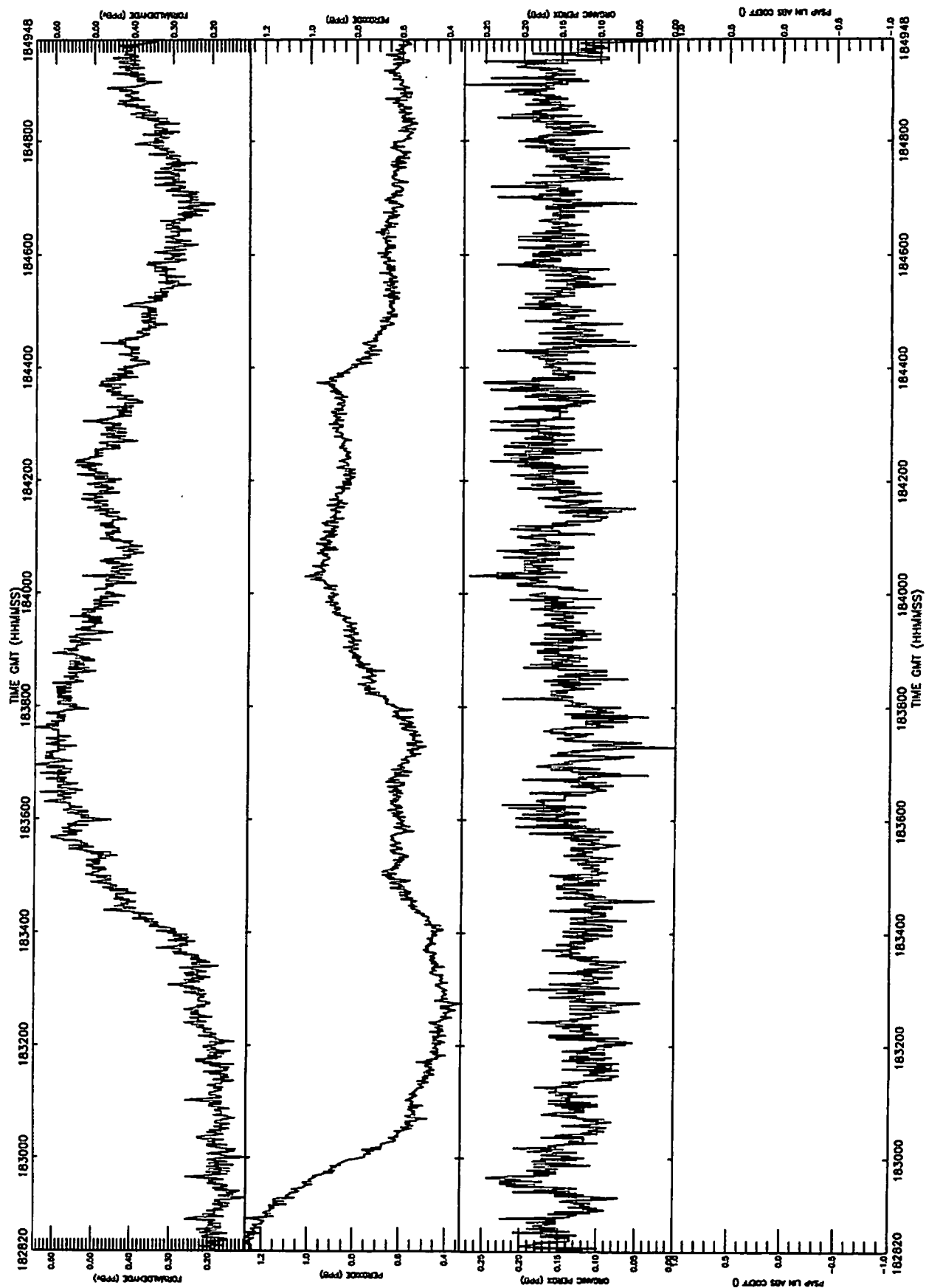
A572 19-AUG-97 R52 1000' From 182820-184948 Plotted 12-Dec-1997 17:25



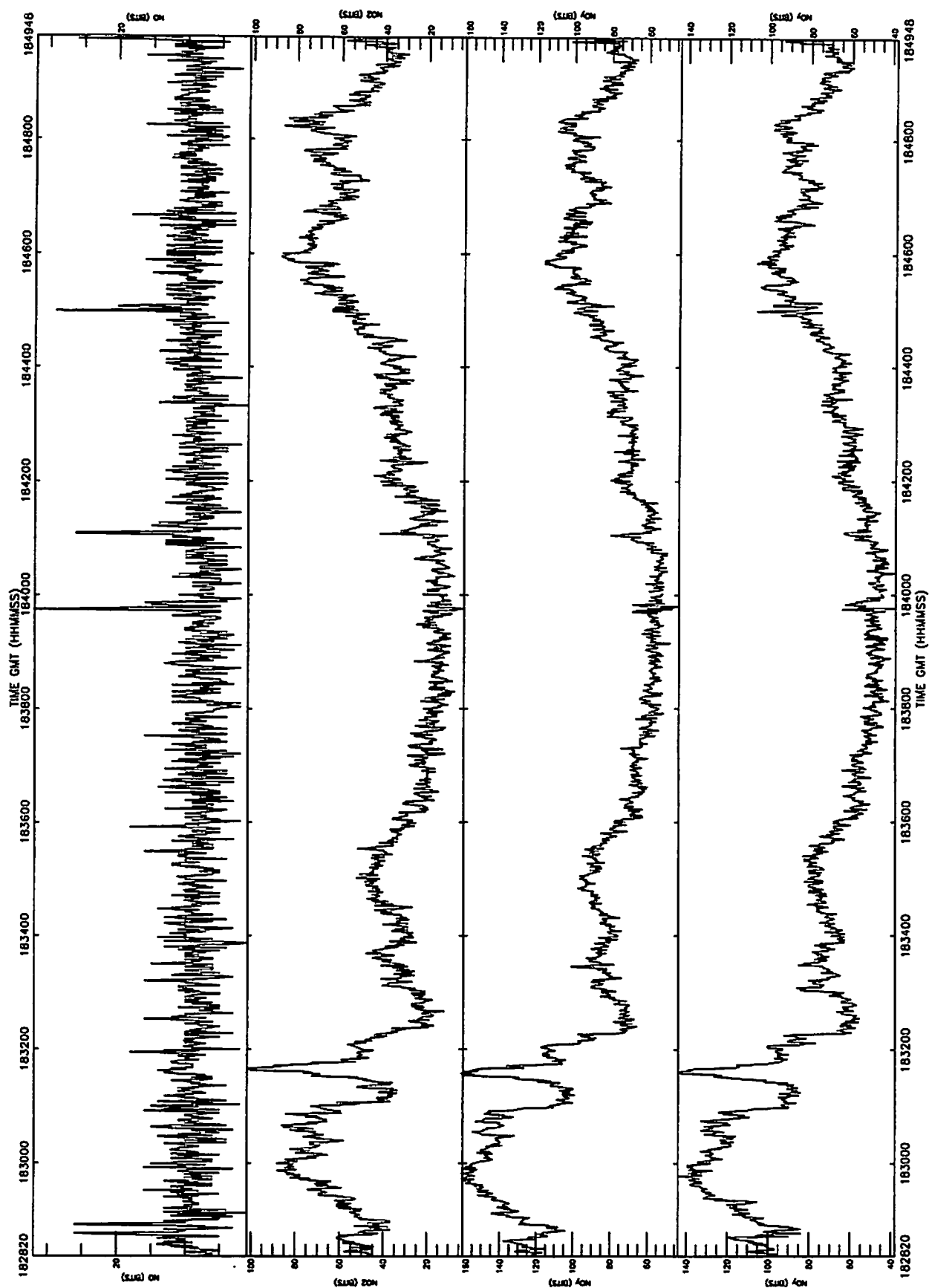
A572 19-AUG-97 R52 1000' From 182820-184948 Plotted 9-Dec-1997 17:29



A572 19-AUG-97 R52 1000' From 182820-184948 Plotted 9-Dec-1997 17:29



A572 19-AUG-97 R52 1000' From 182820-184948 Plotted 9-Dec-1997 17:29



A572 19-AUG-97 R52 1000' From 182820-184948 Plotted 12-Dec-1997 17:25

STATIC PRESSURE (MB)

No of obs 1287
Mean 978.027
Standard dev 0.334291
Max value 979.027
Min value 977.271

DEICED TRUE TEMP (DEG K)

No of obs 1287
Mean 291.918
Standard dev 0.240113
Max value 292.502
Min value 291.520

DEW POINT (DEG K)

No of obs 1287
Mean 289.993
Standard dev 0.416782
Max value 290.791
Min value 288.805

OZONE MIXING RATIO (PPB)

No of obs 1287
Mean 25.3537
Standard dev 3.02354
Max value 32.1862
Min value 17.5183

PCASP CONCENTRATION (CM-3)

No of obs 1287
Mean 341.238
Standard dev 120.513
Max value 726.318
Min value 140.223

FSSP CONCENTRATION (CM-3)

No of obs 1287
Mean 6.985095e-02
Standard dev 8.662128e-02
Max value 0.243405
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 1287
Mean 337.031
Standard dev 2.56221
Max value 343.288
Min value 327.305

CORRECTED LATITUDE (DEGREES)

No of obs 1287
Mean 51.4463
Standard dev 0.274218
Max value 51.8995
Min value 50.9608

CORRECTED LONGITUDE (DEGREES)

No of obs 1287
Mean -5.72302
Standard dev 7.060076e-02
Max value -5.52575
Min value -5.82183

NORTHWARD WIND COMPT (M S-1)

No of obs 1287
Mean 10.4258
Standard dev 0.883081
Max value 12.1503
Min value 8.35438

EASTWARD WIND COMPT (M S-1)

No of obs 1287
Mean -0.225761
Standard dev 0.589809
Max value 1.31567
Min value -1.78230

VERTICAL WIND COMPT (M S-1)

No of obs 1287
Mean 0.216612
Standard dev 0.236201
Max value 1.36177
Min value -0.389442

WIND SPEED (MS-1)

No of obs 1287
Mean 10.4446
Standard dev 0.887149
Max value 12.1566
Min value 8.36420

WIND DIRECTION (DEG)

Mean 178.760

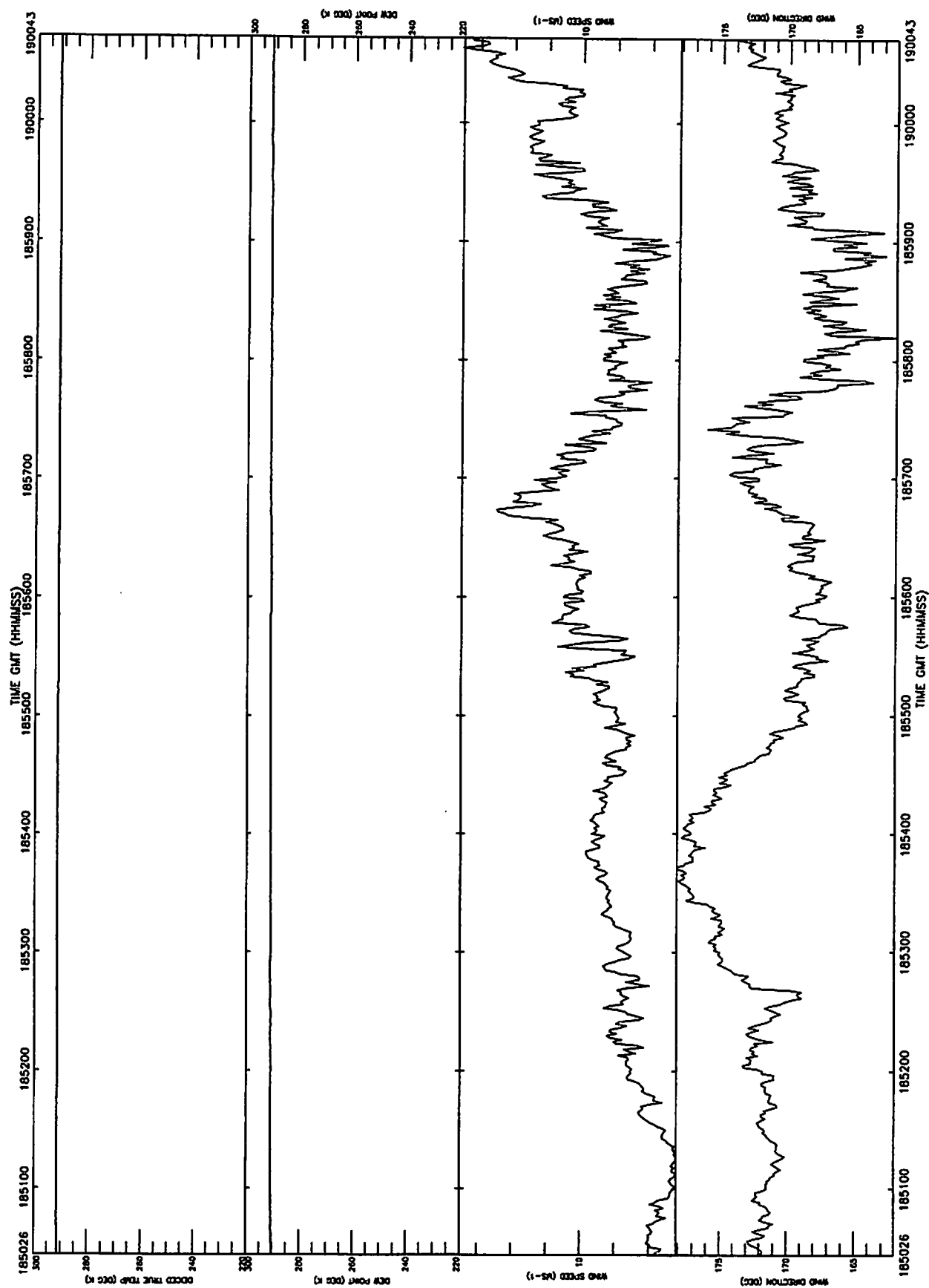
TRUE AIR SPEED (M S-1)

No of obs 1287
Mean 96.1796
Standard dev 1.64116
Max value 99.7363
Min value 90.9351

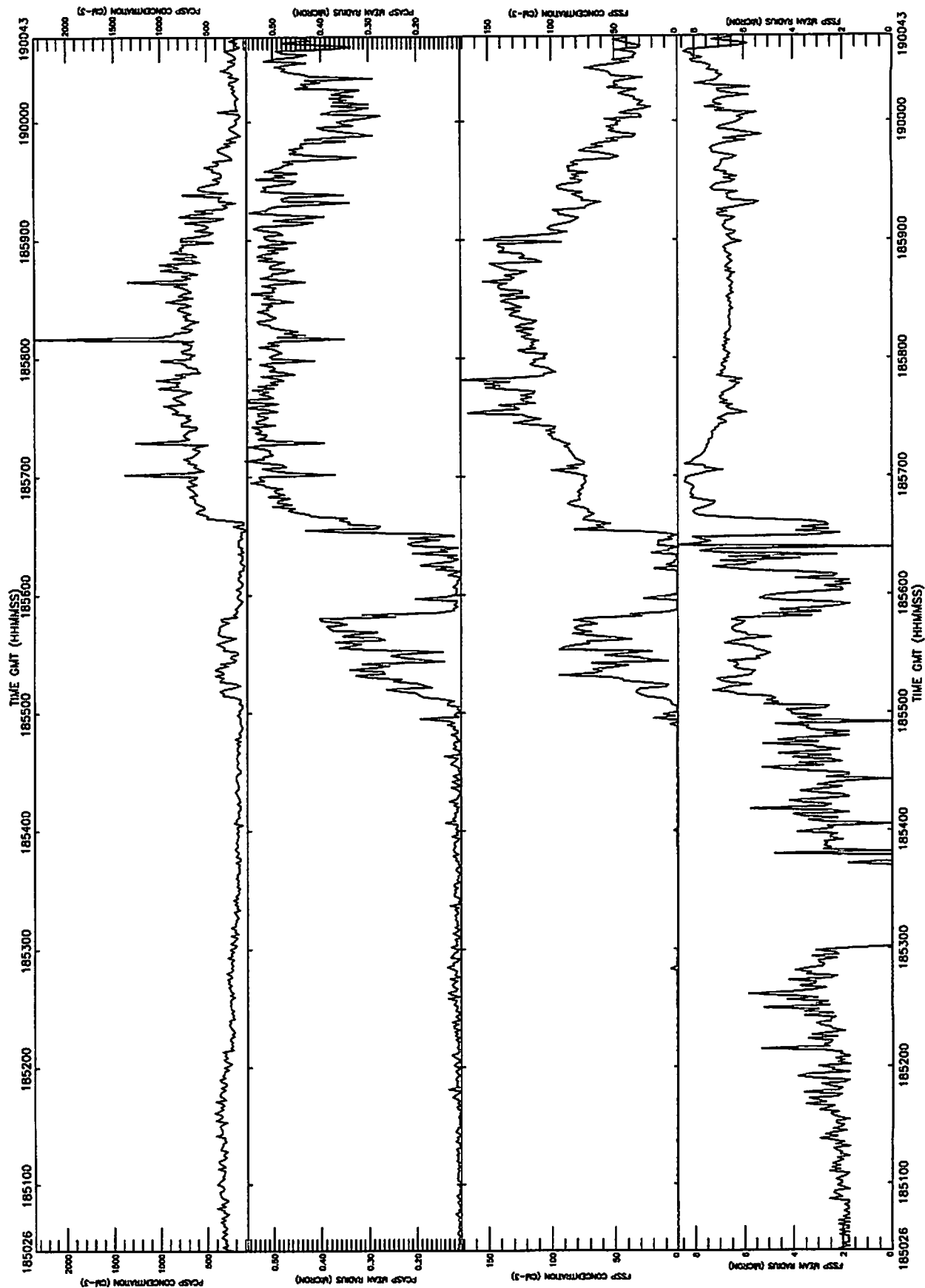
HEADING (DEG)

Mean 185.229

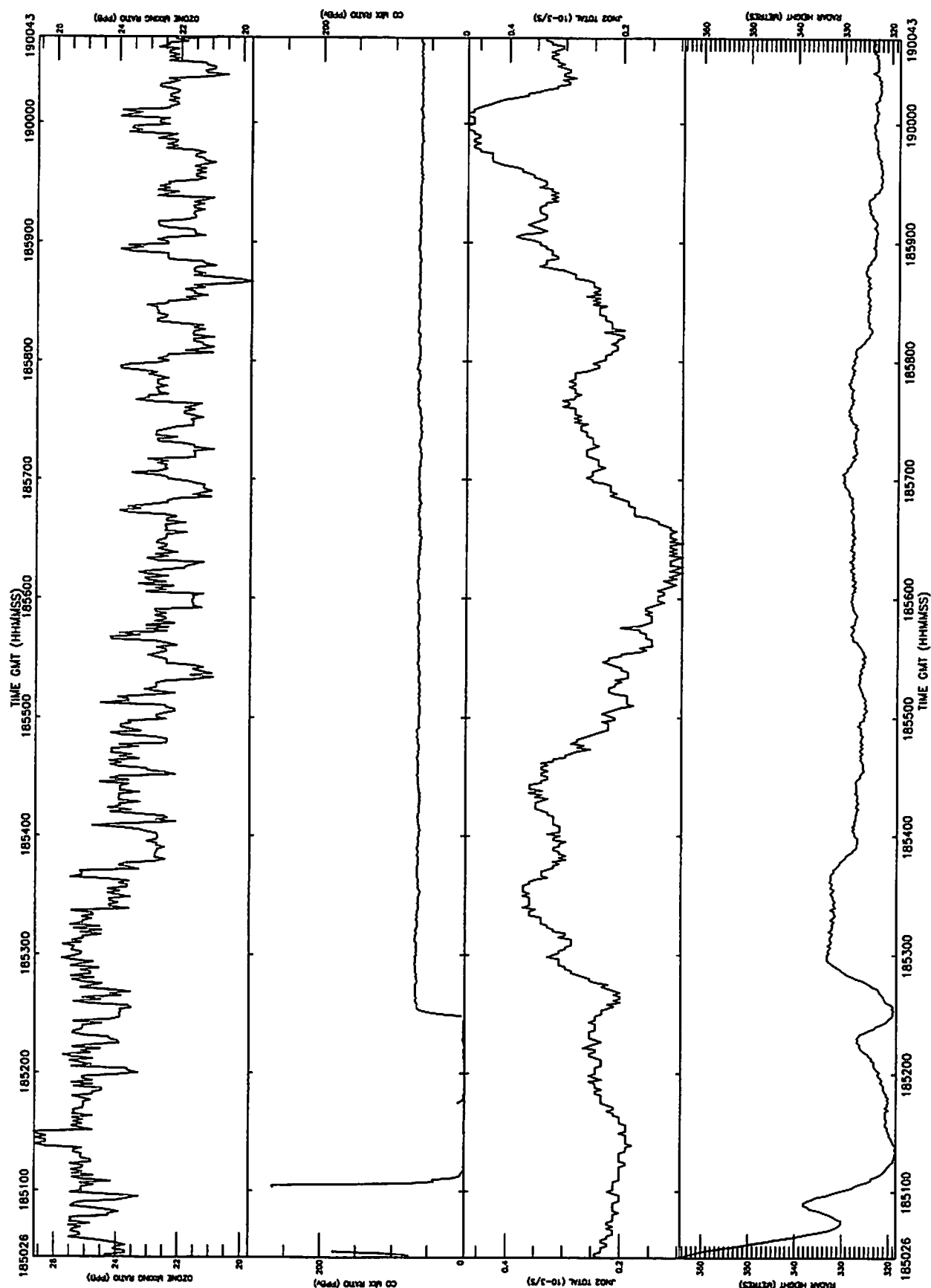
A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 9-Dec-1997 17:31



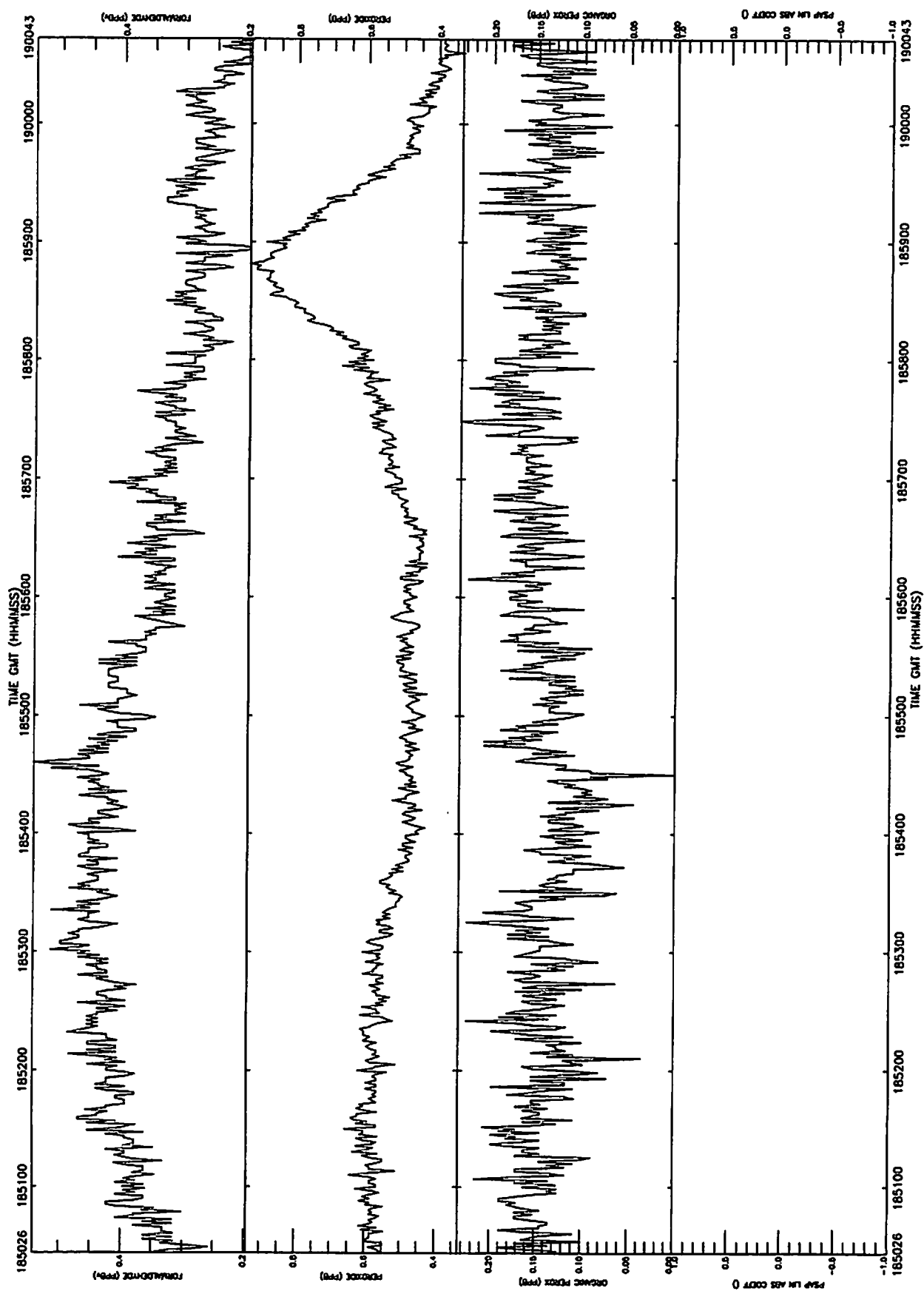
A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 12-Dec-1997 17:27



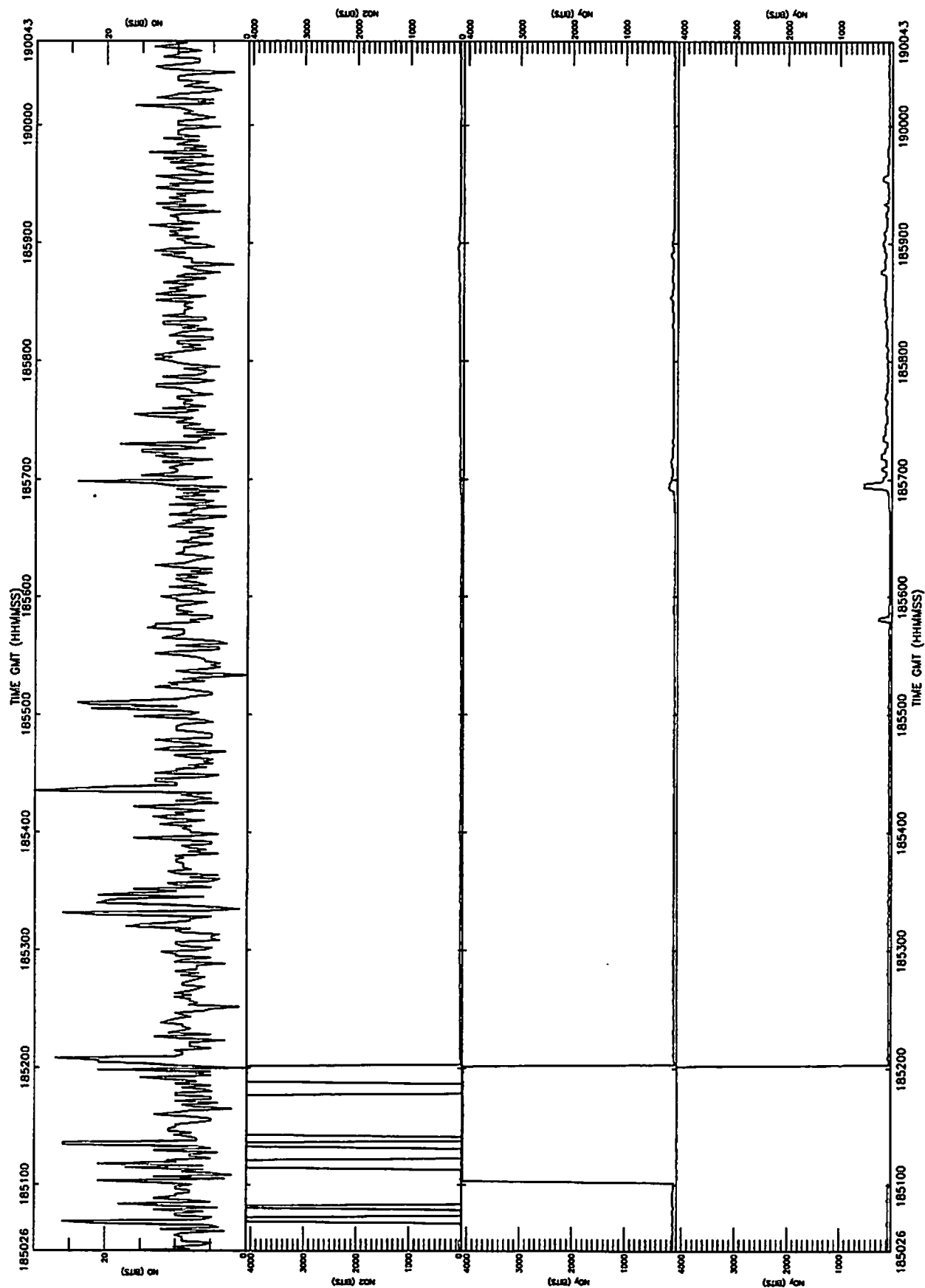
A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 9-Dec-1997 17:31



A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 9-Dec-1997 17:31



A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 9-Dec-1997 17:31



A572 19-AUG-97 R53 1000' From 185026-190043 Plotted 12-Dec-1997 17:27

STATIC PRESSURE (MB)

No of obs 618
Mean 978.913
Standard dev 0.581034
Max value 980.043
Min value 975.035

DEICED TRUE TEMP (DEG K)

No of obs 618
Mean 291.453
Standard dev 9.082898e-02
Max value 291.622
Min value 291.232

DEW POINT (DEG K)

No of obs 618
Mean 291.111
Standard dev 0.310078
Max value 291.691
Min value 290.325

OZONE MIXING RATIO (PPB)

No of obs 618
Mean 23.1965
Standard dev 1.40070
Max value 26.6334
Min value 19.7305

PCASP CONCENTRATION (CM-3)

No of obs 618
Mean 366.193
Standard dev 242.802
Max value 2350.64
Min value 75.1270

FSSP CONCENTRATION (CM-3)

No of obs 618
Mean 40.8285
Standard dev 48.3430
Max value 171.607
Min value 0.000000

RADAR HEIGHT (METRES)

No of obs 618
Mean 326.632
Standard dev 5.31365
Max value 364.476
Min value 318.384

CORRECTED LATITUDE (DEGREES)

No of obs 618
Mean 50.9428
Standard dev 1.869756e-03
Max value 50.9454
Min value 50.9401

CORRECTED LONGITUDE (DEGREES)

No of obs 618
Mean -6.12664
Standard dev 0.247480
Max value -5.69970
Min value -6.55454

NORTHWARD WIND COMPT (M S-1)

No of obs 618
Mean 9.56571
Standard dev 0.616428
Max value 11.6564
Min value 8.37501

EASTWARD WIND COMPT (M S-1)

No of obs 618
Mean -1.51399
Standard dev 0.528181
Max value -0.319519
Min value -2.78373

VERTICAL WIND COMPT (M S-1)

No of obs 618
Mean 0.239874
Standard dev 0.217372
Max value 0.962036
Min value -0.308992

WIND SPEED (MS-1)

No of obs 618
Mean 9.69913
Standard dev 0.616670
Max value 11.7471
Min value 8.60485

WIND DIRECTION (DEG)

Mean 171.006

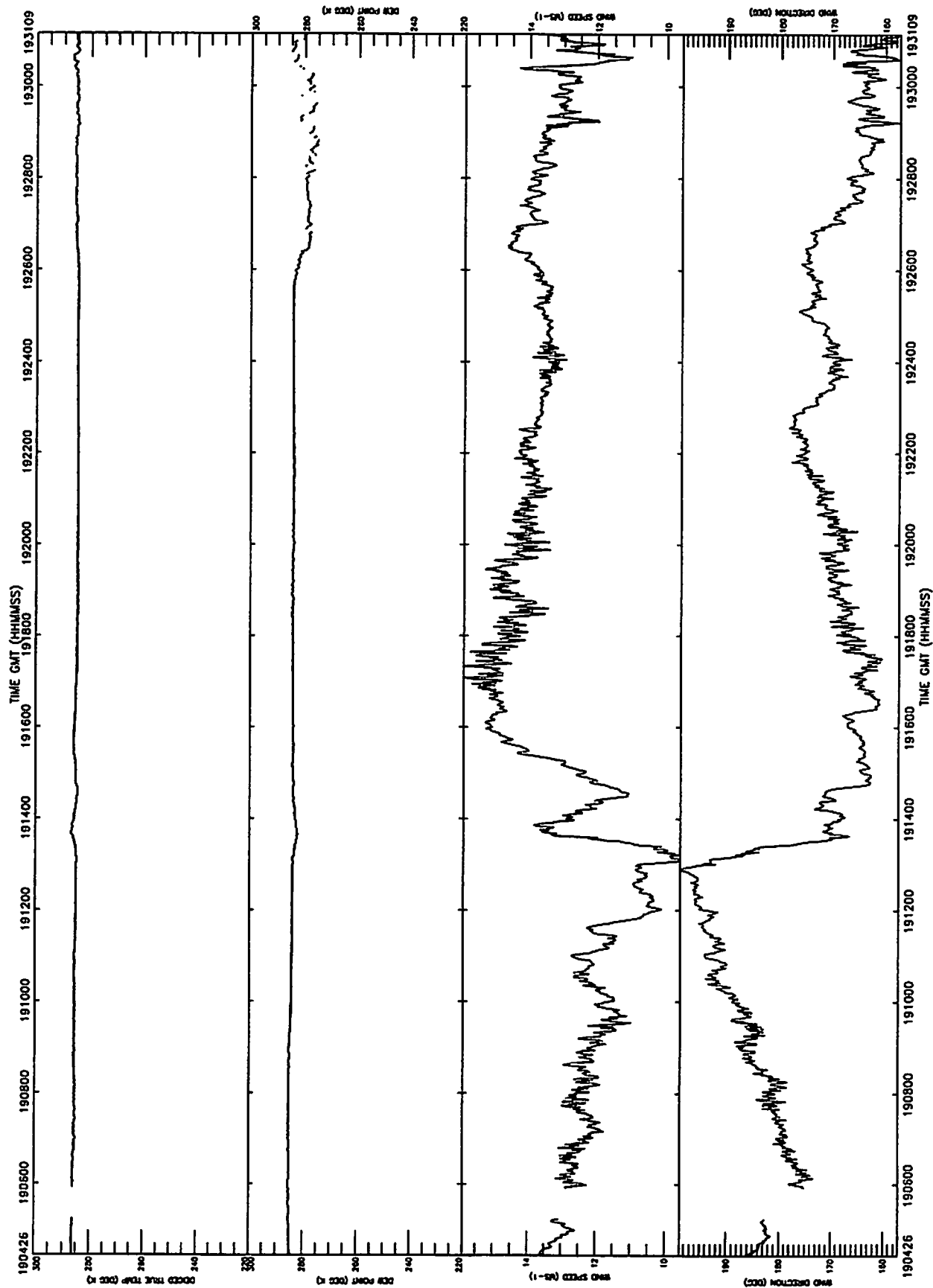
TRUE AIR SPEED (M S-1)

No of obs 618
Mean 96.1902
Standard dev 1.88498
Max value 101.462
Min value 91.1590

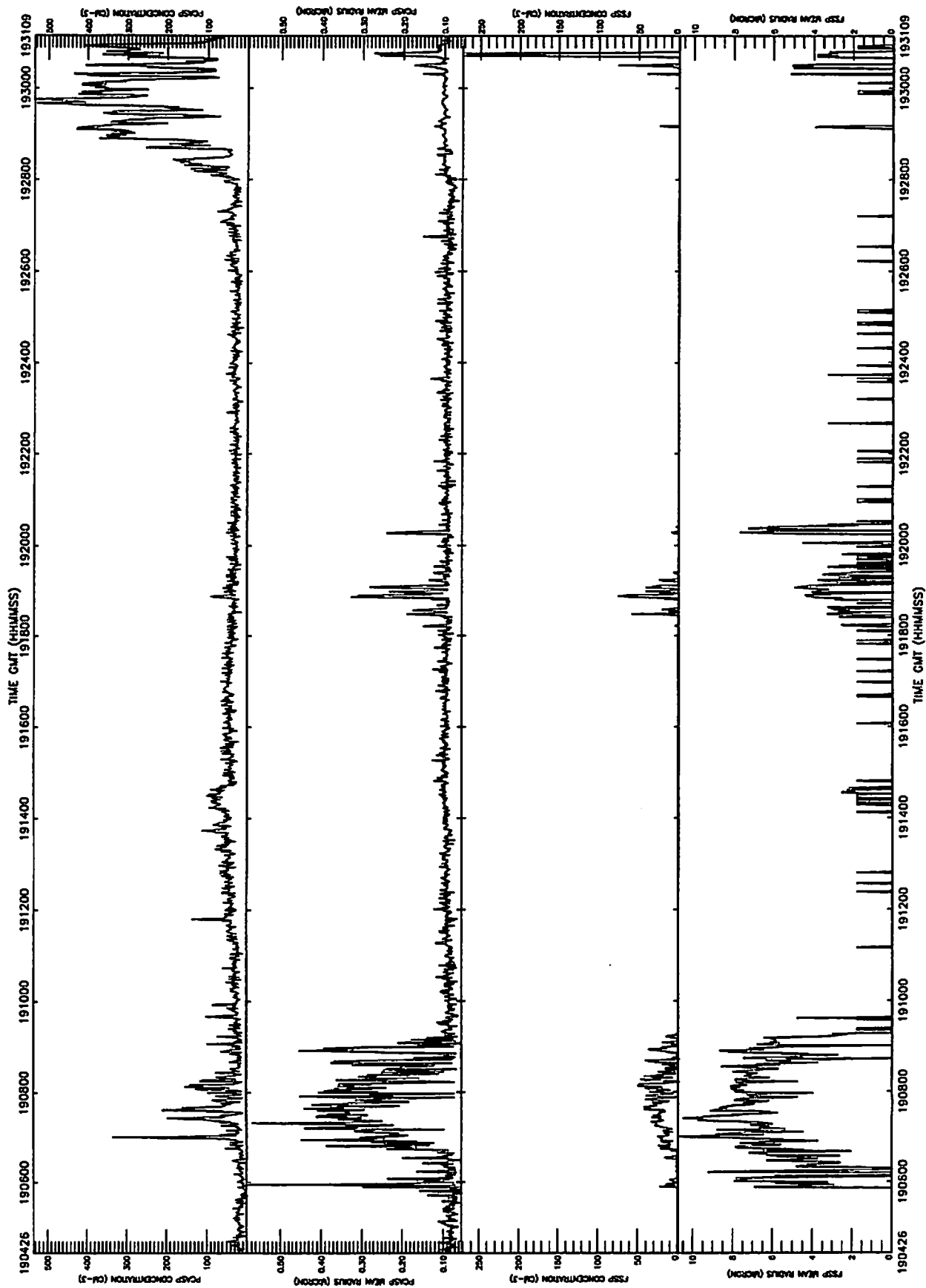
HEADING (DEG)

Mean 269.611

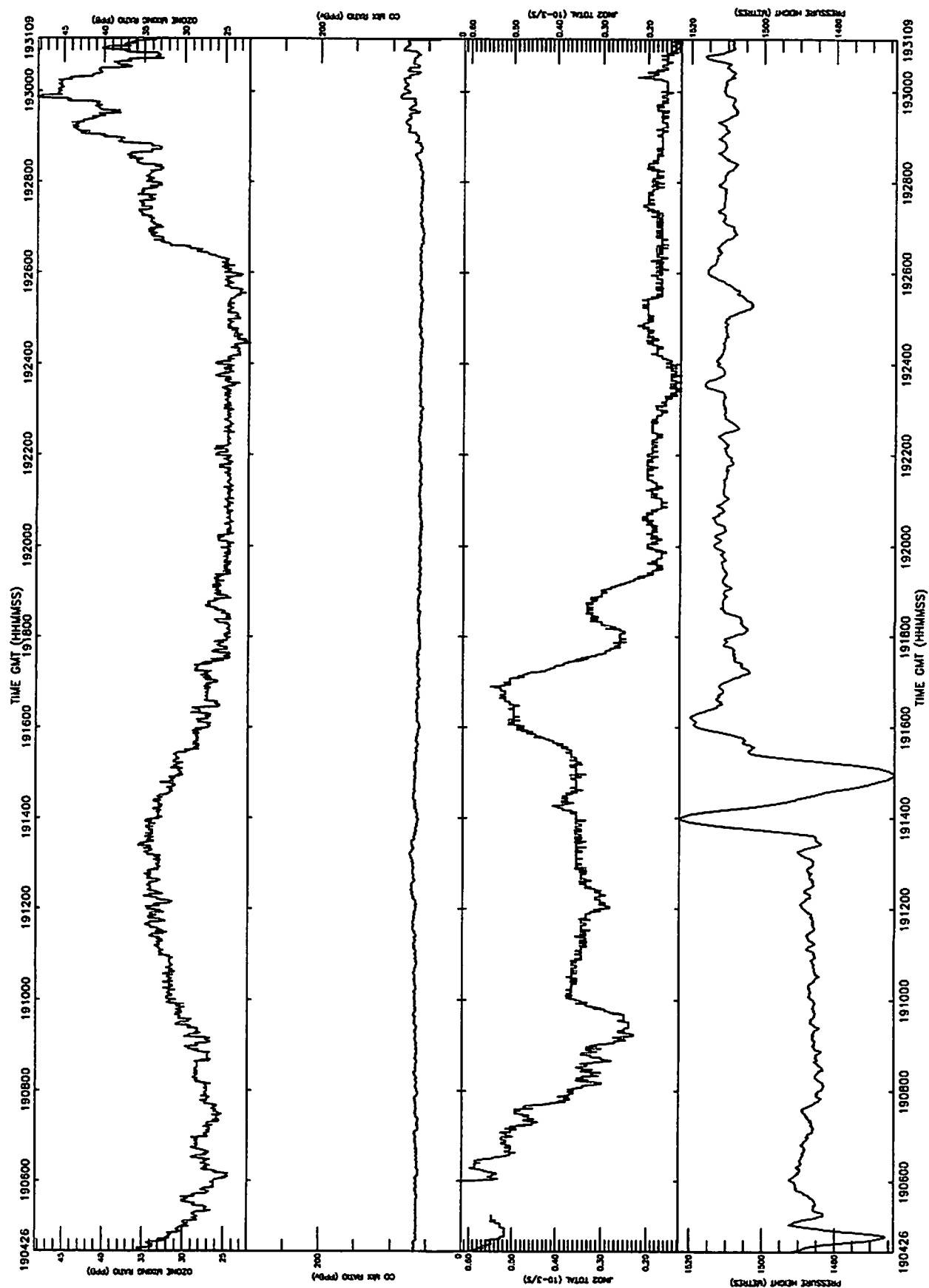
A572 19-AUG-97 R54 5000' From 190426-193109 Plotted 9-Dec-1997 17:35



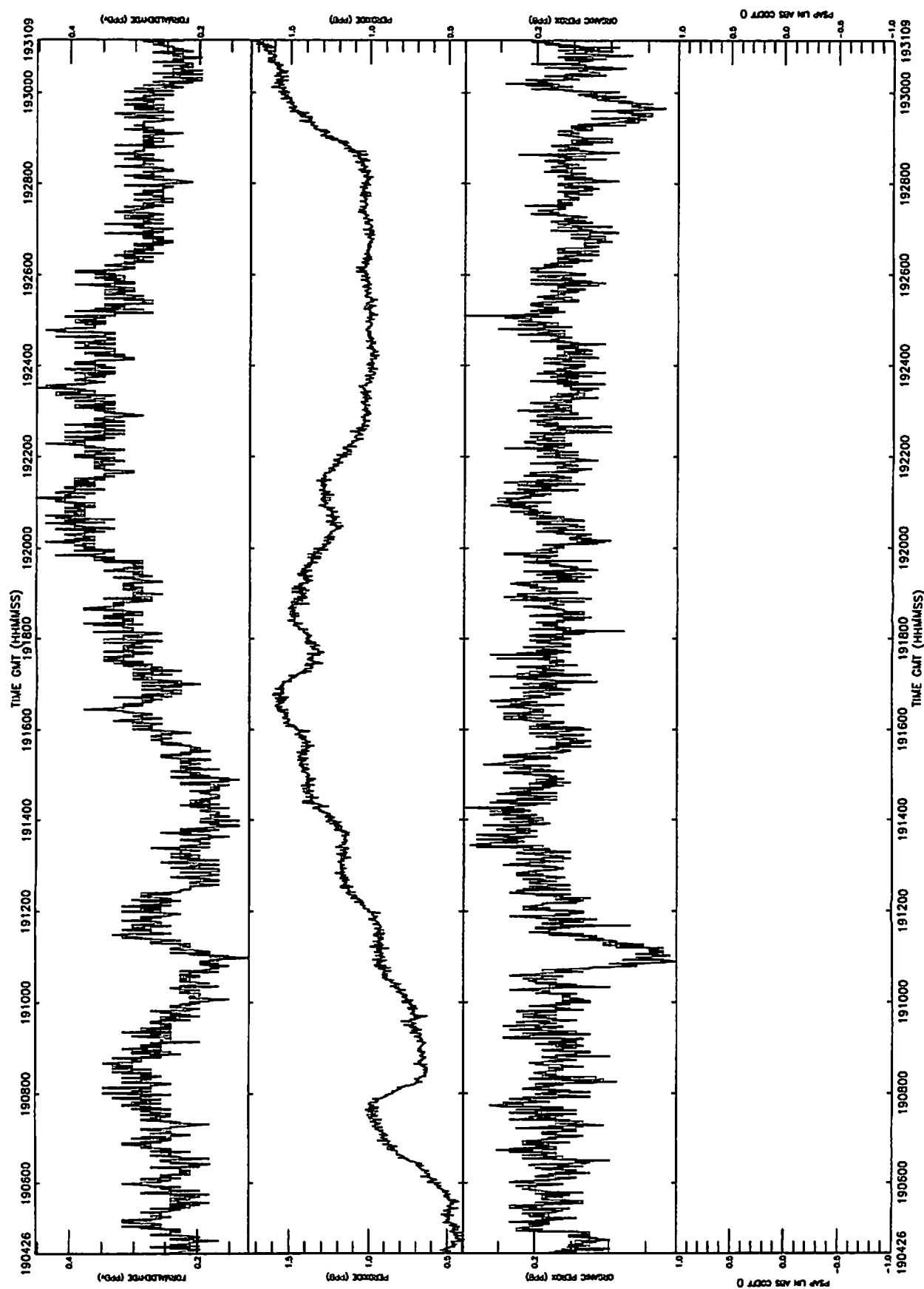
A572 19-AUG-97 R54 5000' From 190426-193109 Plotted 12-Dec-1997 17:30



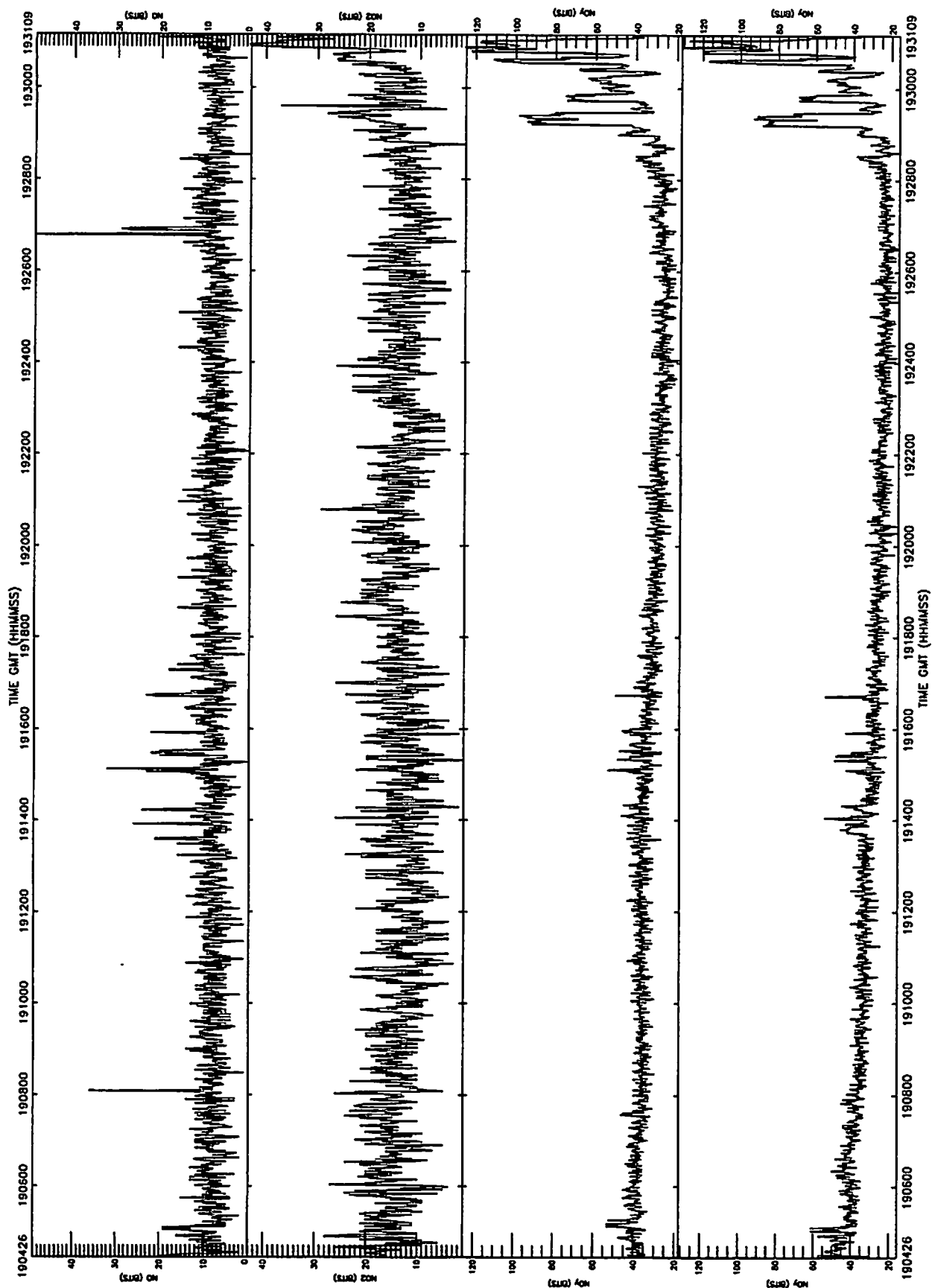
A572 19-AUG-97 R54 5000' From 190426-193109 Plotted 9-Dec-1997 17:35



A572 19-AUG-97 R54 5000' From 190426-193109 Plotted 9-Dec-1997 17:36



A572 19-AUG-97 R54 5000' From 190426-193109 Plotted 9-Dec-1997 17:36



A572 19-AUG-97 R54 5000' From 190426-193109 *Plotted 12-Dec-1997 17:30*

STATIC PRESSURE (MB)

No of obs 1604
Mean 845.481
Standard dev 1.33593
Max value 849.332
Min value 843.187

DEICED TRUE TEMP (DEG K)

No of obs 1604
Mean 285.423
Standard dev 0.440935
Max value 286.923
Min value 284.651

DEW POINT (DEG K)

No of obs 1604
Mean 283.293
Standard dev 2.22723
Max value 285.342
Min value 275.144

OZONE MIXING RATIO (PPB)

No of obs 1604
Mean 29.5312
Standard dev 5.10120
Max value 48.2767
Min value 22.0783

PCASP CONCENTRATION (CM-3)

No of obs 1604
Mean 59.2891
Standard dev 77.9350
Max value 534.569
Min value 1.00000

FSSP CONCENTRATION (CM-3)

No of obs 1604
Mean 3.07339
Standard dev 14.8130
Max value 272.424
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 1604
Mean 1500.75
Standard dev 12.8714
Max value 1522.87
Min value 1463.68

CORRECTED LATITUDE (DEGREES)

No of obs 1604
Mean 51.9471
Standard dev 0.429931
Max value 52.6449
Min value 51.1295

CORRECTED LONGITUDE (DEGREES)

No of obs 1604
Mean -5.47201
Standard dev 0.481302
Max value -4.70377
Min value -6.41098

NORTHWARD WIND COMPT (M S-1)

No of obs 1604
Mean 12.8911
Standard dev 1.18149
Max value 15.2788
Min value 9.30438

EASTWARD WIND COMPT (M S-1)

No of obs 1604
Mean -1.42278
Standard dev 2.16584
Max value 3.49414
Min value -5.18394

VERTICAL WIND COMPT (M S-1)

No of obs 1604
Mean -1.403326e-03
Standard dev 0.374823
Max value 0.726143
Min value -1.57046

WIND SPEED (MS-1)

No of obs 1563
Mean 13.1693
Standard dev 1.21856
Max value 15.8845
Min value 9.55958

WIND DIRECTION (DEG)

Mean 173.702

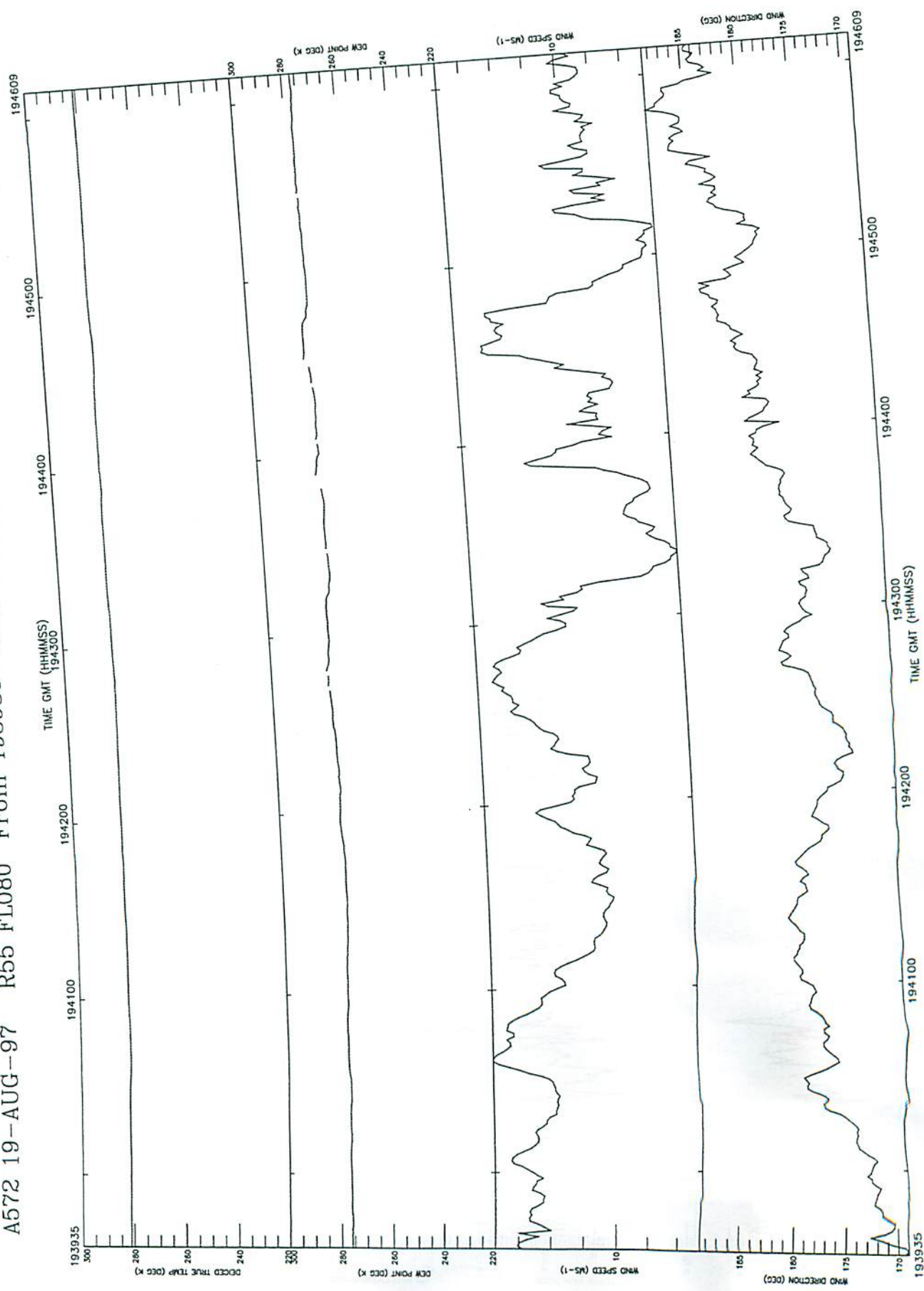
TRUE AIR SPEED (M S-1)

No of obs 1604
Mean 118.663
Standard dev 23.0107
Max value 153.688
Min value 96.5303

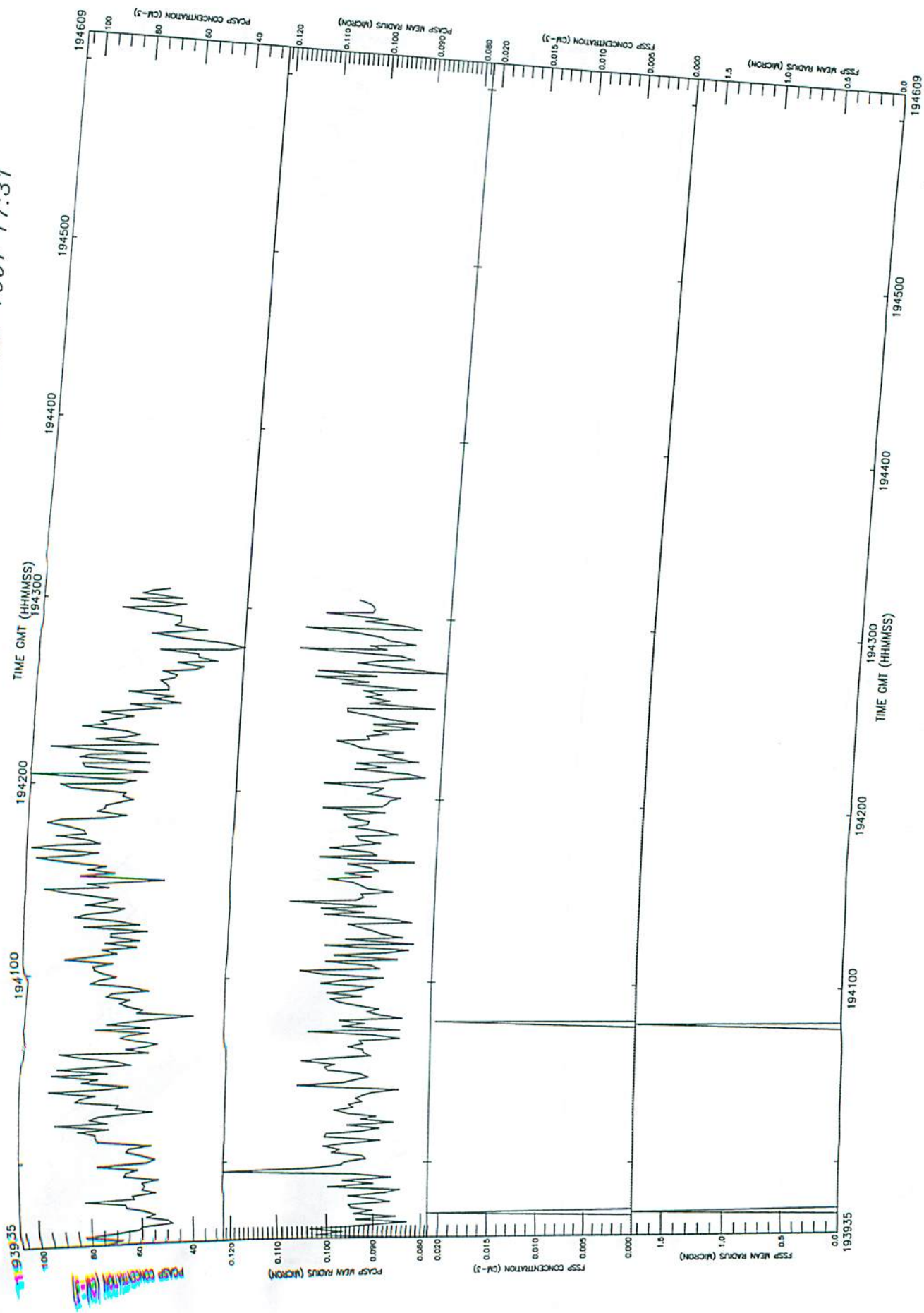
HEADING (DEG)

Mean 34.9021

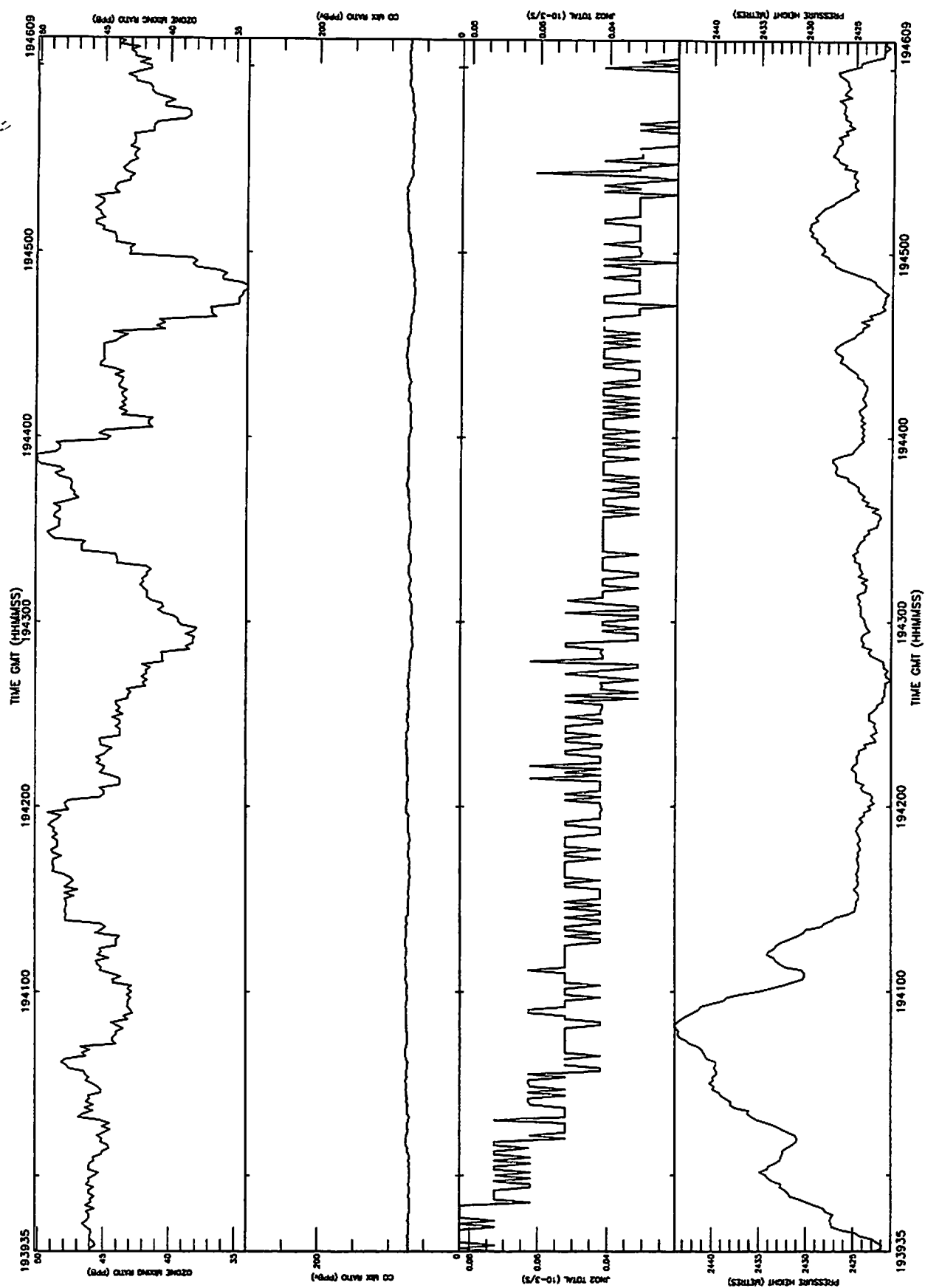
A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 9-Dec-1997 17:37



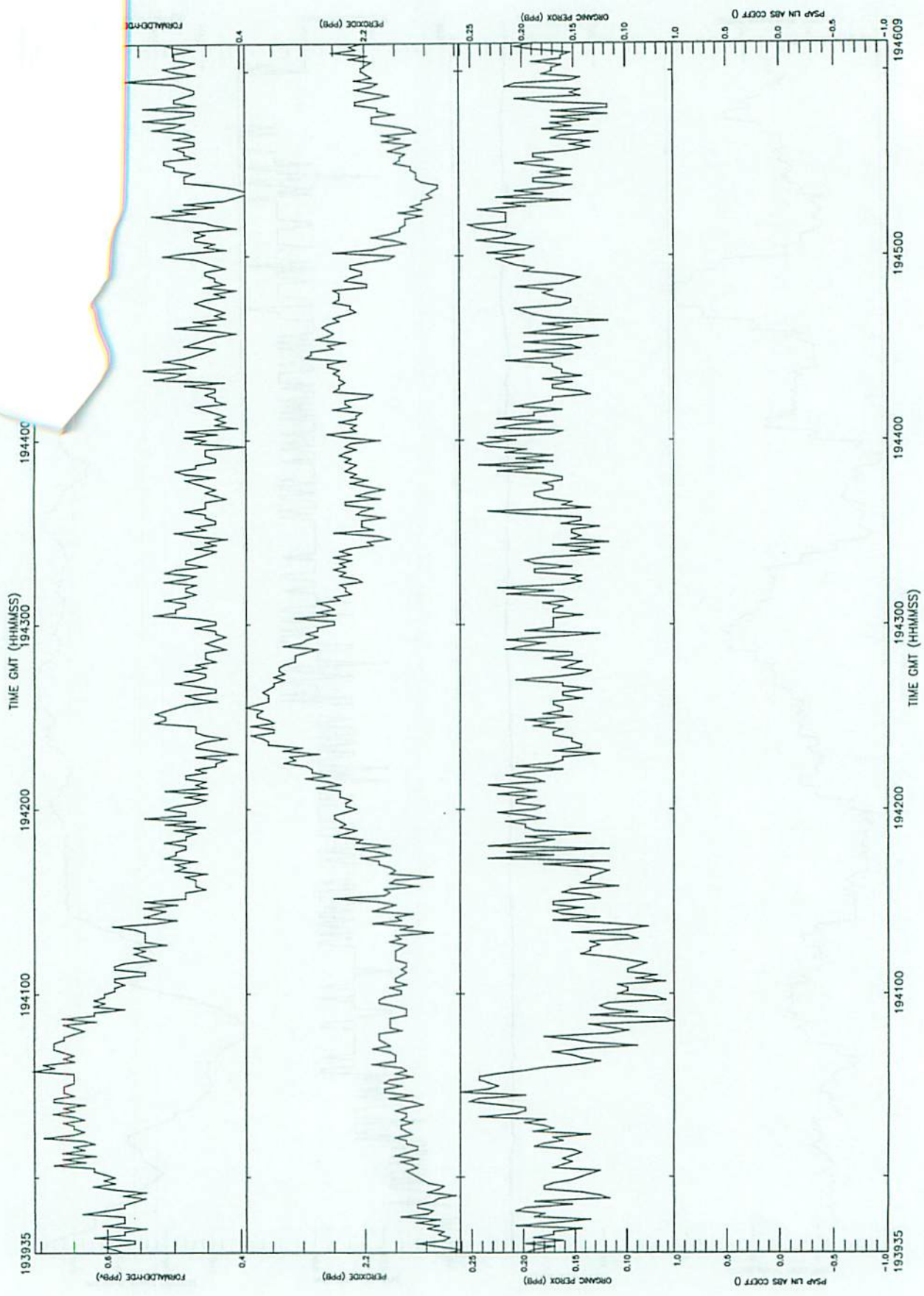
A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 12-Dec-1997 17:31



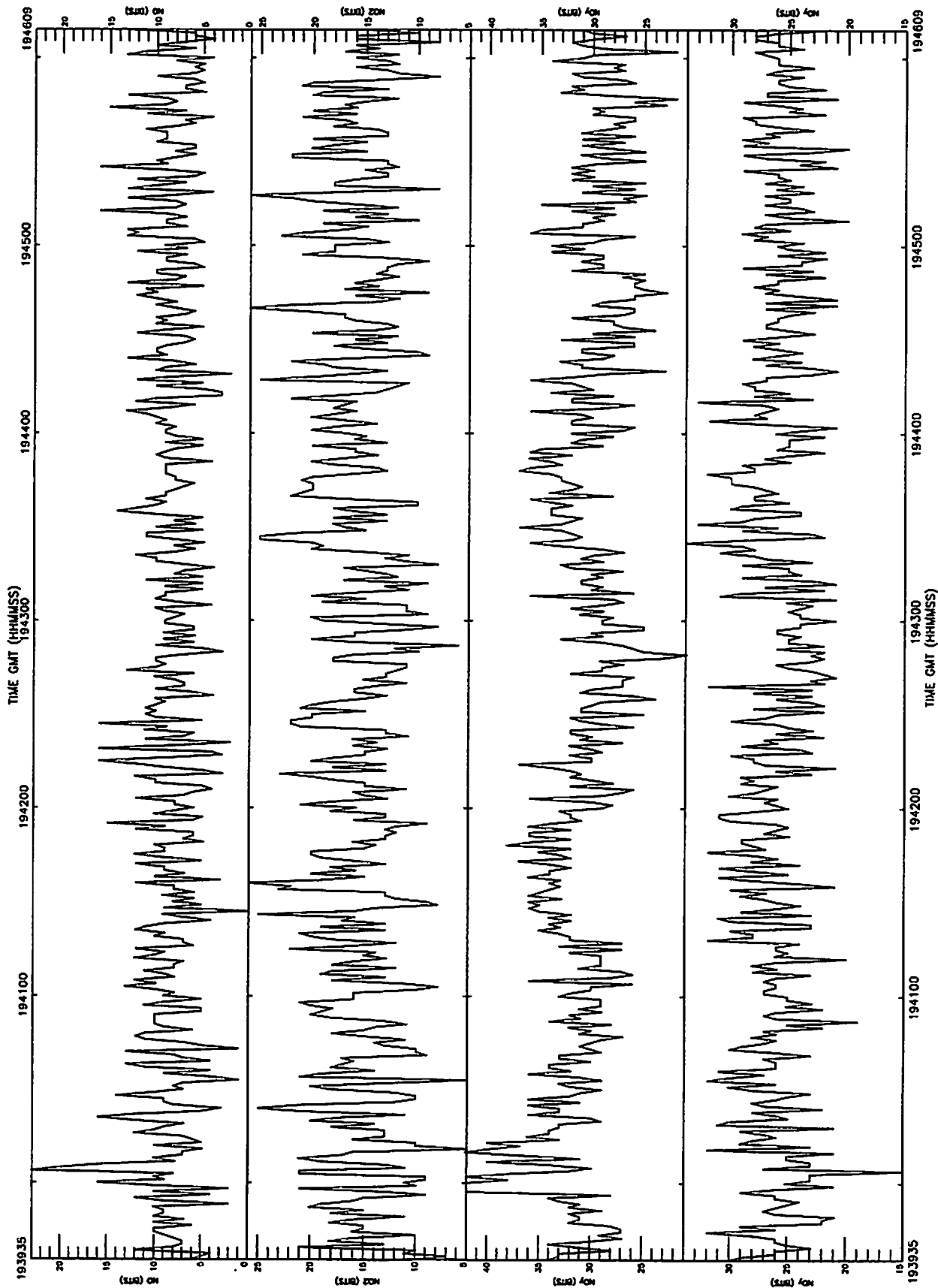
A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 9-Dec-1997 17:37



A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 9-Dec



A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 9-Dec-1997 17:37



A572 19-AUG-97 R55 FL080 From 193935-194609 Plotted 12-Dec-1997 17:32

STATIC PRESSURE (MB)

No of obs 395
Mean 753.674
Standard dev 0.512592
Max value 754.270
Min value 752.116

DEICED TRUE TEMP (DEG K)

No of obs 395
Mean 281.020
Standard dev 0.234357
Max value 281.406
Min value 280.295

DEW POINT (DEG K)

No of obs 395
Mean 276.531
Standard dev 0.800488
Max value 279.178
Min value 274.935

OZONE MIXING RATIO (PPB)

No of obs 395
Mean 44.1683
Standard dev 3.19938
Max value 50.1710
Min value 34.1270

PCASP CONCENTRATION (CM-3)

No of obs 395
Mean 37.5081
Standard dev 36.5699
Max value 107.125
Min value 1.000000e-38

FSSP CONCENTRATION (CM-3)

No of obs 395
Mean 1.053202e-04
Standard dev 1.478382e-03
Max value 2.109370e-02
Min value 0.000000

PRESSURE HEIGHT (METRES)

No of obs 395
Mean 2427.24
Standard dev 5.42412
Max value 2443.74
Min value 2420.94

CORRECTED LATITUDE (DEGREES)

No of obs 395
Mean 52.5822
Standard dev 9.583063e-02
Max value 52.7470
Min value 52.4170

CORRECTED LONGITUDE (DEGREES)

No of obs 395
Mean -4.88154
Standard dev 0.115838
Max value -4.67742
Min value -5.07988

NORTHWARD WIND COMPT (M S-1)

No of obs 395
Mean 10.3301
Standard dev 0.809858
Max value 11.8279
Min value 8.61138

EASTWARD WIND COMPT (M S-1)

No of obs 395
Mean -0.297748
Standard dev 0.710658
Max value 1.42458
Min value -2.19707

VERTICAL WIND COMPT (M S-1)

No of obs 395
Mean 0.343036
Standard dev 0.191263
Max value 0.990105
Min value -0.150429

WIND SPEED (MS-1)

No of obs 395
Mean 10.3579
Standard dev 0.820119
Max value 11.8581
Min value 8.64898

WIND DIRECTION (DEG)

Mean 178.349

TRUE AIR SPEED (M S-1)

No of obs 395
Mean 108.084
Standard dev 1.57664
Max value 110.593
Min value 104.025

HEADING (DEG)

Mean 36.6496

Glossary

Aircraft Position, Speed and Attitude

- **Navigation:** The aircraft carries GPS, OMEGA, and inertial navigation systems.
- **Pressure height:** is based on the standard atmosphere as specified by the International Civil Aviation Organisation (sea level pressure of 1013.25 hPa). Pressure height is quoted in terms of Flight Levels (height in hundreds of feet *e.g.* FL100 = 10000 feet).
- **Radar height:** altitude of the aircraft above surface, measured by radar.
- **Time:** All times are UTC.

General meteorology

- **Tephigrams:** are given for every major profile of each flight. A tephigram is a thermodynamic diagram (temperature (T) - entropy (ϕ) diagram) used to assess the static stability of a given atmospheric profile. Other meteorological organisations use similar diagrams such as the Emagram or the Skew T log p diagram.
- **Deiced true temperature:** air temperature with corrections for aircraft speed and altitude.
- **Potential temperature:** the temperature that a parcel of air would have if it follows a dry adiabatic lapse rate to the 1000 hPa level.
- **Dew point:** dew point (the temperature at which a sample of air would just become saturated with respect to a plane surface of water if cooled at a constant pressure) calculated from the chilled mirror General Eastern hygrometer.

Cloud Physics

- **PCASP:** The Passive Cavity Aerosol Sampling Probe counts number concentrations (number per cm^3) of particles in 15 channels spaced pseudo-logarithmically over the diameter range 0.10 μm to 3.00 μm , to provide a particle size distribution over this range.
- **FSSP:** The Forward Scattering Spectrometer Probe is used to measure water droplets in the size range 0.5 to 47.0 μm diameter (cloud droplets). It has four range settings, each of which is divided into 15 size channels.

Chemistry Parameters

- **Ozone:** Calibrated readings from the TECO 49 ozone analyser in ppb. Instrument scientist: Joss Kent and Ken Dewey (UK Met. Office).
- **JNO₂:** The sum of upward and downward facing radiometers (raw data). Instrument scientists: Christoph Gerbig and Sandra Schmitgen (FZ Jülich).
- **Hydrogen peroxide:** Raw data recorded in ppb (approx.). Instrument scientist: Brian Bandy (UEA Norwich).
- **Organic peroxide:** Raw data recorded in ppb (approx.). Instrument scientist: Brian Bandy (UEA Norwich).
- **Formaldehyde:** Raw data (approx) converted to ppb using actual scale factor and offset. Instrument scientist: Graham Mills (UEA, Norwich).
- **NO_x:** Parameters (NO, NO₂, NO_{y1}, NO₂) were recorded on MRF's data recording system and are plotted in bits. Instrument scientist: Stephane Bauguitte (UEA, Norwich).
- **Bottles:** Please refer to the bottle flight logs (within the flight folder section) to see when these were filled. Analysis carried out at NILU.
- **CO:** Approximate data in ppb from the DRS. Instrument scientist: Sandra Schmitgen (fz-Jülich).

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